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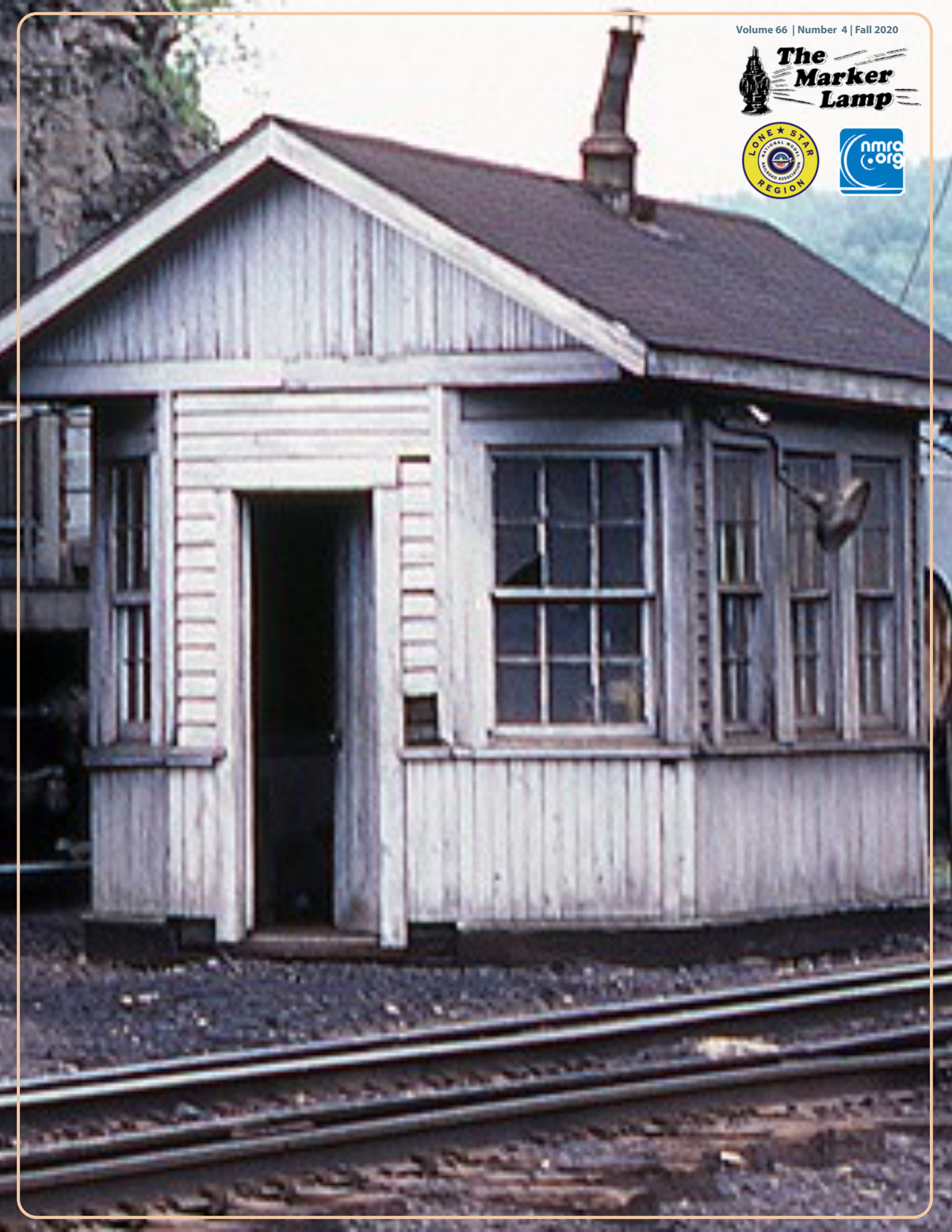
The Marker Lamp



Lone Star Region Call Board

The Marker Lamp

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The editorial policy of The Marker Lamp, the official publication of The Lone Star Region, shall be to contribute, wherever possible, to the promotion, growth and understanding of the hobby of Model Railroading, within the confines of good taste and responsibility. The Marker Lamp is published once each quarter by and for the members of The Lone Star Region of The National Model Railroad Association. Articles appearing in The Marker Lamp are the opinions of the authors and do not necessarily reflect the position or policies of the officers or membership of The Lone Star Region or The National Model Railroad Association.

Address all correspondence, news, photos and drawings to the editor. All material will be gladly accepted and will be used depending on the availability of space and suitability of material. None will be returned unless a stamped, self-addressed envelope is provided. Correspondence relating to Pike Ads and Dealer Ads should be addressed to Speed Muller lsrtreasurer@huntatrophy.com

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L&N Scale House
collection of Michael Harang

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VACANT

President's Message

by Chuck Lind, MMR
Chucklind46@gmail.com

The strangeness of 2020 continues! We are still limited in our gatherings. Although ZOOM meetings are great, we miss the face-to-face interaction.

In Division 8, two of our groups have started in-person meetings, with limited attendance…..Petticoat Junction and the San Jacinto Model Railroad Club. SanJac is actually having ZOOM and in-person meetings simultaneously.

Elections will be coming up and nominations are being accepted. Pete Leach is the nominations chair. If you are interested in running for an office, please contact Pete at 603-289-8030 or pleachtx55@gmail.com. He will be happy to help you with the paperwork and get you on the ballot.

The San Jacinto Model Railroad Club has scheduled the yearly train show on April 10, 2021. Our fingers are crossed that we will actually be able to have the show as scheduled. Since many of the train shows in the area have been canceled, this could result in a record attendance for our show. For additional information, visit the San Jac Model Railroad Club website at www.sanjacmodeltrains.org.

While you are on the San Jac website, you might check out the Fall Layout Tours which are being done virtually due to Covid 19.

Remember the 2021 LSR convention will be a joint convention with the folks in the Mid-Continent Region. It will be held at the Embassy Suites in Tulsa, Oklahoma. The dates are June 17-20, 2021.

The convention is co-chaired by Marc LaChey of the Lone Star Region and Ken Ehlers, MMR of the Indian Nation Division of the Mid-Continent Region. There is a full list of clinics from some of the best clinicians of the two regions. Plans for some of the non-rail attendees include a visit to the Thomas Gillcrease Institute of American History and Art, as well as other activities. Registration is now open at www.2021TulsaUnion.com.

As for me, I have been working (in a different scale…..1:1) on some doors for two steam engines that are getting a cosmetic restoration at the Southern Forest Heritage Museum at Long Leaf, Louisiana. The hardest part of the project was having to paint over the beautiful oak. The doors were delivered and one set has been installed.

I want to thank Laurie for putting this column together, since upon my return from Long Leaf, my retina detached again and it was back into surgery for me. Time will tell as to if this surgery will be the cure. (Please keep Chuck in your prayers…..Laurie)

Virtual presentations are a real surprise

by Riley Triggs
rileytriggs@gmail.com
ponyrr.blogspot.com
modelrailroaddesign.blogspot.com

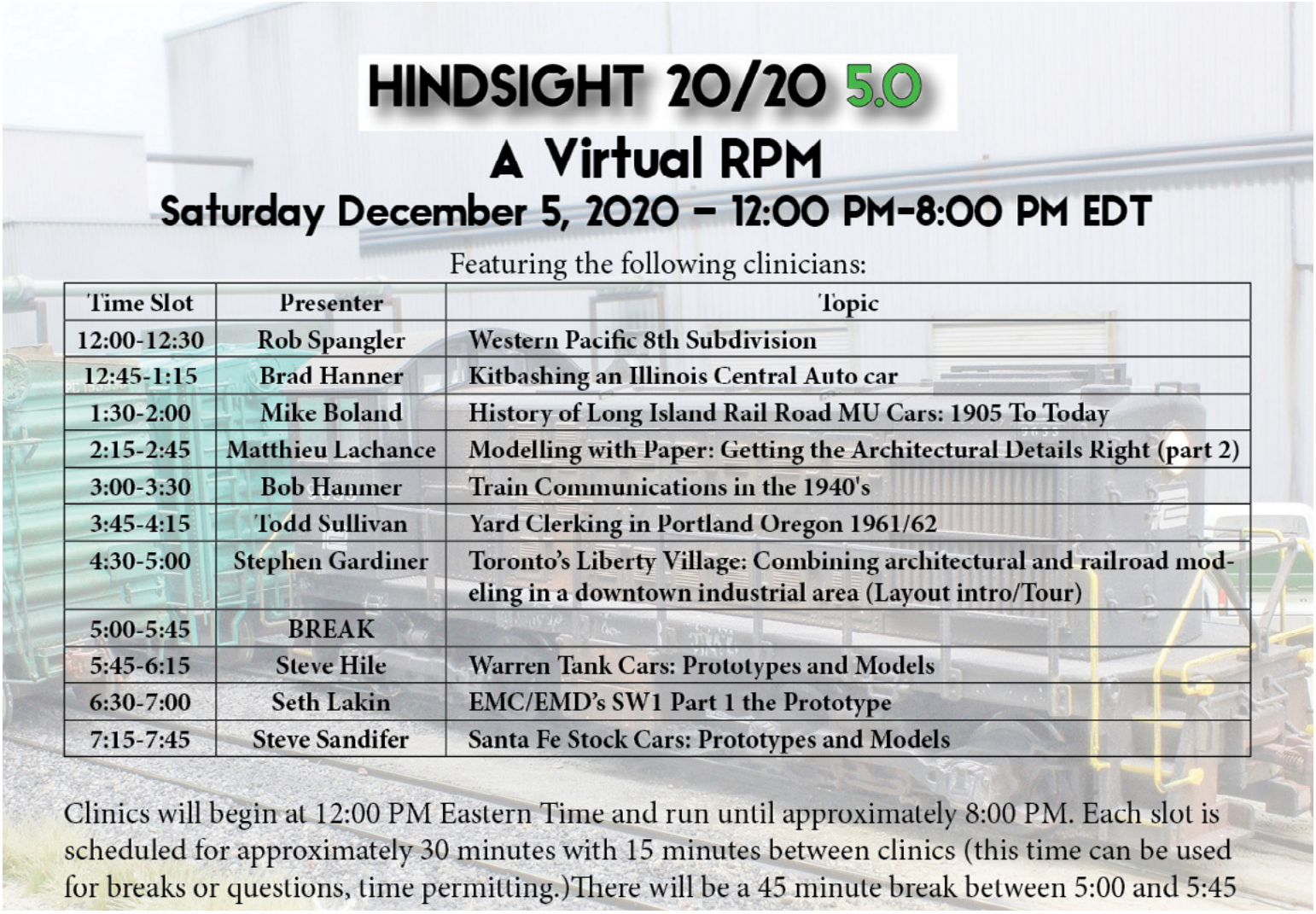
Paper modeling topic by Matthieu Lachance

I had a really great discovery this past weekend that came as a result of a word of mouth suggestion from a friend in Virginia: I learned that RPM (Railroad Prototype Modelers) meets are not just about rolling stock and locomotive modeling. *How did I not know this?* I need to confirm, but I have been told this has been the case only recently, so I haven't been completely out of the loop - just enough to have a rare, very pleasant, weekend model railroading surprise.

Those of us who have the fortunate luxury of remaining employed while safely isolated at home spend a lot of time on video conferencing meetings and events these days. So, I'm not thrilled to spend my weekend recreational time attending more Zoom events, and I usually don't. But they also afford amazing opportunities to hear from modelers all over the world in both our comfortable niche interests or a dabble in other topics we normally wouldn't.

I think I've admitted publicly that I'm a prototype railroad modeler, but I'm not a die hard rivet counter yet, so the RPM group has only casually interested me - not quite enough to have ever spent the time, effort, and money to attend a meet. But the pandemic created the right conditions for me to try an online version of a meet because of its low threshold for attending.

Starting earlier this year, the intrepid trio of Ted Culotta, Ryan Mendell, and Hunter Hughson (also known as Gerry Schaefer in the real world) started the Hindsight 20/20 series of virtual RPM meets. The latest was version 5.0, and featured a lineup with no missteps or duds, and - what I came to


HINDSIGHT 20/20 5.0
A Virtual RPM
Saturday December 5, 2020 – 12:00 PM-8:00 PM EDT
Featuring the following clinicians:
Time Slot | Presenter | Topic
12:00-12:30 | Rob Spangler | Western Pacific 8th Subdivision
12:45-1:15 | Brad Hanner | Kitbashing an Illinois Central Auto car
1:30-2:00 | Mike Boland | History of Long Island Rail Road MU Cars: 1905 To Today
2:15-2:45 | Matthieu Lachance | Modelling with Paper: Getting the Architectural Details Right (part 2)
3:00-3:30 | Bob Hanmer | Train Communications in the 1940's
3:45-4:15 | Todd Sullivan | Yard Clerking in Portland Oregon 1961/62
4:30-5:00 | Stephen Gardiner | Toronto's Liberty Village: Combining architectural and railroad modeling in a downtown industrial area (Layout intro/Tour)
5:00-5:45 | BREAK |
5:45-6:15 | Steve Hile | Warren Tank Cars: Prototypes and Models
6:30-7:00 | Seth Lakin | EMC/EMD's SW1 Part 1 the Prototype
7:15-7:45 | Steve Sandifer | Santa Fe Stock Cars: Prototypes and Models
Clinics will begin at 12:00 PM Eastern Time and run until approximately 8:00 PM. Each slot is scheduled for approximately 30 minutes with 15 minutes between clinics (this time can be used for breaks or questions, time permitting.)There will be a 45 minute break between 5:00 and 5:45

Hindsight 20/20 5.0 lineup from December 5, 2020

realize - it wasn't all just about car and locomotive modeling.

The day started at a very comfortable 11AM CST with a layout tour of Rob Spangler's Western Pacific 8th Subdivision, moved through modeling cars, history presentations, structure modeling with paper, how trains communicated in the 40s, confessions of a yard clerk from 19 60s Seattle, research and switching layout design, an wrapped up with LSR's own Steve Sandifer speaking authoritatively on Santa Fe stock cars.

I attended the entire day along with about 200 others - almost all of them stayed the entire time, too! It was compelling content, thoughtfully presented, fresh and nicely paced at only 30 minutes a piece, a good mix of topics, and followed up with good questions and discussion with the moderators.

There is also a Groups.io chat (ask to be a member) for follow up questions and file sharing and a flickr virtual model room for photo sharing of your latest projects. The next one is in January to take the place of the annual meet in Coco Beach, so keep an eye out for it to register.

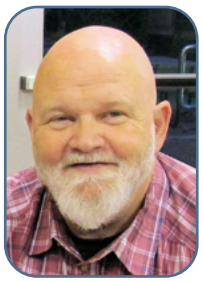
Have you discovered something about the hobby you'd like to share? Drop me a line about writing up a short (or long) account and let our whole group know about it!

Also check out in this issue Jeff Palmer's interview of Gordy Robinson for the inside scoop on the very popular NMRAx online events.

Happy (online) railroading!

Riley

Up the Tracks Events Calendar



By Bill Dryden
NMRA & LSR Life Member

DISCLAIMER in light of COVID-19

I have visited each of the web sites provided herein and the only cancellation I found was the one noted. However, you should (re)verify any event you are interested in attending before traveling to it.

Here are upcoming events within the LSR of which I am aware. I will provide all the information YOU send me or I can glean from other publications, websites, etc., for these events. Additional information may be available through the NMRA Scale Rails and/or various trade magazines or various websites. Also, note that all show times and dates are at the discretion of the sponsoring organization and are subject to change. Please forward any and all information about upcoming events or activities in your area, club, etc., to me via e-mail at bdr149@airmail.net.

The Tulsa Union Convention
2021 Midcontinent and Lone Star Regions NMRA
June 17-20, 2021
Embassy Suites
3332 South 79th Street
Tulsa, OK
Come all!!
PARTICIPATE!!!

RECURRING EVENTS AND MEETINGS

LSR Division 2 -– Metairie, LA

LSR Division 2 meets on Mondays between July 30th to October 1st at the Crescent City Model Railroad Club, 601 N. Lester Ave in Metairie, LA 70003 at 6:30 PM for Modular Monday. For more information contact Ken Mason at series9parts@cox.net.

LSR Division 3 - Trinity River Division – Allen

The Trinity River Division meets on the Third Saturday of every month at the Christ Servant Lutheran Church, Allen Texas. Occasionally things change due to scheduling conflicts so pay close attention to the email meeting notices that go out a week before the meeting. If you would like to be added to the email list contact Donna Orr at donnalorrtx@gmail.com.

LSR Division 4 – Cen-Tex Division – Austin

The Cen-Tex Division meets bi-monthly at the Austin Northwest Recreational Center, 2913 Northland Drive, Austin, TX. Meetings are held at 10:00 am on the Second Saturday of the *odd* months and include clinics, show-and-tell, DCC minute, social activities and a layout open house. For more information about upcoming meetings, see http://centexnmra.org or contact director@centexnmra.org to be added to the mail list.

LSR Division 8 - Texas Gulf Division – Houston

The Texas Gulf Division presents hands-on-clinics every second Saturday of each month at the Bayland Center, 6400 Bissonnet, Houston. The clinic times are 10:00 a.m. to 12:00 p.m. All are welcome. To be added to the Division 8 mailing list contact Jim Lemmond at jimlem@comcast.net. The Division 8 web site is http://texasgulfdivision.org/

Alamo Model Railroad Engineers - San Antonio

The Alamo Model Railroad Engineers meets the 2nd Friday of the month at 7:30 p.m. in the Zucht Building at the Texas Transportation Museum, 11791 Wetmore Rd., San Antonio TX. For more information call Peter Shavney (210) 317-3661 or Gene Turner (210) 355-2777; or visit the web site www.alamomodelrailroadengineers.com.

Austin Model Railway Society - Austin

The Austin Model Railway Society is a HO scale modular group that is open to new members and meets once a month. For more information please email Riley Triggs at president@austinrailway.org or visit the web site www.austinrailway.org.

Houston Area Live Steamers

HALS has over 9,000 feet of track for you to enjoy and ride on most any Saturday of the year. Someone is usually there every Saturday with special run, operations, waybills/timetable, work and fun run days scheduled throughout the year. Our public run days are the third Saturday of the month March through November. Come see our 2,500 foot expansion in Phase 4. Model Railroaders (any scale) are welcome to attend most any time. Check our web site out at www.hals.org for schedule of events or e-mail Rick White – rick.white.jr@gmail.com for more information.

New Braunfels Railroad Museum

Kids Fun Day is held on the 1st and 3rd Saturday of each month, 10:00 am to 2:00 pm. New Braunfels Railroad Museum, 302 South San Antonio Street, in the 1907 Restored Railroad Depot; New Braunfels, TX. Museum phone (830) 627-2447. Kids of all ages will have the opportunity to run model trains and become a Jr. Engineer. Also among the displays at the Kids Fun Day will be a large US Army Model Garden (G) Scale and Lego Trains. Visit our Steam Engine, Caboose, Dining Car (available for Birthday Parties) and Box Car. There will be other fun, train related activities, additional model trains, train artifacts, our 1907 depot are on display. The Railroad Museum opens at 10:00 am on Saturdays. For field trip scheduling and more information, call Howard Young (210) 542-6121, or visit us at www.nbrrm.org.

North Texas Council of Railroad Clubs – Irving

The North Texas Council of Railroad Clubs (NTC) meets the 3rd Tuesday of the month. Visit the website www.dfwtrainshows.com for more information about the NTC, its meeting site or member clubs.

Texas Northern Model Railroad Club – Dallas (North)

The Texas Northern Model Railroad Club business meeting is the 1st Thursday of the month and for regular meetings on Thursday evenings and most Saturdays. If you like to operate, come by on Tuesday nights to join our weekly operation session. Located in North Dallas at 11999 Plano Rd., Suite 154, Dallas, TX 7 5243. For more information: www.texasnorthern.org.

Texas Western Model Railroad Club – Forest Hills

The Texas Western Model Railroad Club meets for its business meeting every 1st Thursday of the month at 7:00 PM. The Club is located at 6808 Forest Hills Drive, Forest Hills, TX. For more information: (682) 587-2092 or www.twmrc.org or email cdo@twmrc.org.

EVENTS AND SHOWS

January 2021

9th TCA Lone Star Division (Gulf Coast Chapter) Annual Winter Division Meet. Sat. 10:30 a.m. to 4:00 p.m. Adults $7, Family $12, Children 12 and under FREE with adult. Location TBA, Houston, TX. More information: www.tca-gulfcoastchapter.org.

16th – 17th Dallas Area Train Show. (Sponsored by the North Texas Council of Railroad Clubs). Sat. 9:00 a.m. to 5:00 p.m., Sun. 10:00 a.m. to 4:00 p.m. Adult $10, 12 and under Free w/ Adult. Plano Civic Centre, 2000 E Spring Creek Parkway, Plano, TX. More information: www.dfttrainshows.com.

February 2021

The Greater Houston Train Show is held every third Saturday in February. It features Model & Photo Contests, Operating Layouts, Clinics and Vendors from all over the Southwest. Check back for details of the 2021 show as it becomes available: http://sanjacmodeltrains.org/GHTS.html.

April

24th – 25th New Braunfels Annual Spring Train Show Jamboree. (Sponsored by New Braunfels Railroad Museum). Sat. 10:00 a.m. to 5:00 p.m., Sun. 10:00 a.m. to 4:00 p.m. Adults $10 (14 & older), Child $2 (5-13 years old). New Braunfels Civic Center, 375 South Castell Avenue, New Braunfels, TX. More information: www.newbraunfelsrailroadmuseum.org/trainshow.

August 2021

28th – 29th Austin Area Train Show 2020. Sat. 10:00 a.m. to 6:00 p.m., Sun. 10:00 a.m. to 4:00 p.m. Adults $8, Children 12 and under FREE with adult. Palmer Events Center, 900 Barton Springs Road, Austin, TX. More information: info@austintrainshow.org or https://austintrainshow.org/ or follow AMRS on Facebook!

Excursion Train Trips

Austin Steam Train; Cedar Park, TX; (512) 477-8468; www.austinsteamtrain.org

Grapevine Vintage Railroad; Grapevine, TX; (817) 410-3185; www.gvrr.com

Old Hickory Railroad; Jackson, LA; (225) 634-7397; www.louisianasteamtrain.com

Texas State Railroad; Palestine & Rusk, TX; (888) 987-2461; www.texasstaterr.com

Please consider our deadlines for submittals and publications to allow adequate lead time to correctly announce your event – Column submission deadlines are the 15th of January, April, July and October; publication of the Marker Lamp is the middle of the following month.

Whose track goes there?

You tell me whose layout this big photo is from, and I give the first person to email me the correct answer at rrrduino@huntatrophy.com a campfire lighting Arduino next time we meet!

Do you live in central Texas?

Whether you're new to model railroading,
want a large layout but don't have the room,
or just want to hang out with friends...

Come join us!

We're an HO scale modular club with regular meetings in the Austin area.
Members participate in many ways, from software to scenery to operations.

AUSTIN MODEL RAILWAY SOCIETY
EST AMRS 2017

Check out all our website at **austinrailway.org** for more information and how to join.
You can also reach us at **info@austinrailway.com** or **(512) 836-5275**.

Sleeping

By Riley Triggs

2021 Tulsa Union Convention
Layout Preview

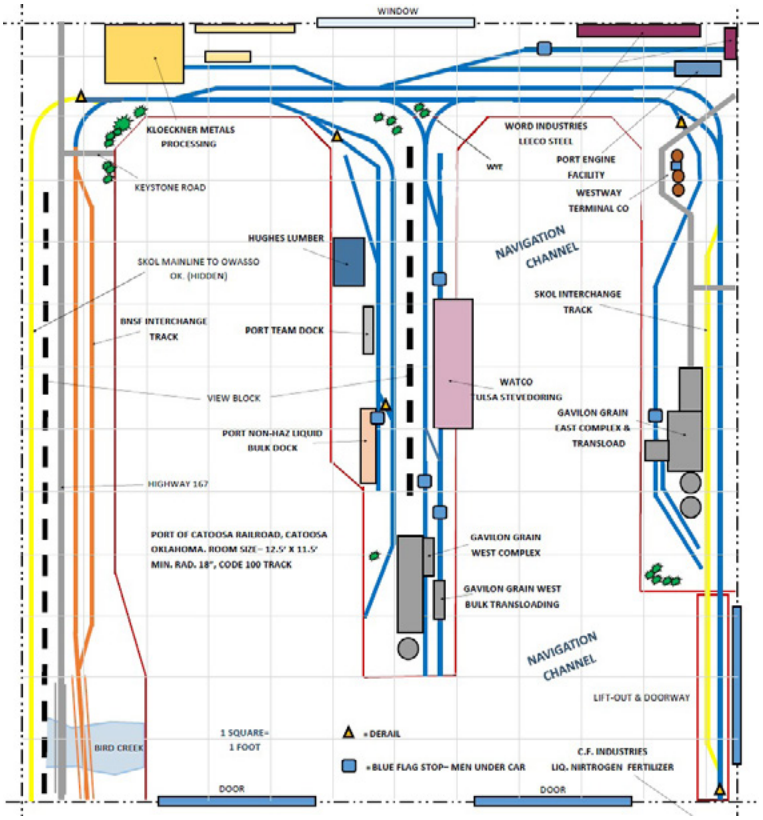
From the 2021 Tulsa Union Convention web site

Dale Baker
Port of Catoosa Railroad
HO Scale

The HO Scale Port of Catoosa Railroad is a representation (proto-freelance) of modern-day rail operations at the Tulsa Port of Catoosa. The layout is a single level, shelf-style layout situated in a 12.5' by 11.5' room. It represents the day-to-day switching activities of the Port of Catoosa Industrial Railroad and is serviced by two rail connections that are modeled on the layout.

The railroad is fed by the SKOL (A Regional Railroad) from the West out of Owasso Oklahoma and the BNSF (Class 1 Railroad) from the East at Catoosa Oklahoma. The Port traffic includes steel in coils, tank commodities, grain cars, lumber cars, flat cars and some box cars with miscellaneous cargos. The Port operates its own locomotive power in a distinctive burgundy and blue scheme.

The layout itself is elevated at 50" approximately rail height above the floor. It is set low enough to allow an operator to reach into the layout to access turnouts for operations. All turnouts are hand operated. DCC by Digitrax and throttles are wireless, WiThrottle is also available. The layout is controlled by Yard Limit Operations throughout. It is located in a non-pet/nonsmoking home. Restroom is located just outside the layout room. A Crew Lounge is available to relax and sit.



Arrangements have been made with the Embassy Suites, 3332 South 79th East Ave. in Tulsa to host the convention. Attendees who book early can take advantage of a rate of $106.00 for a King room and $111.00 for a double room. And as it customary, the Embassy provides a free, made-to-order breakfast and a complimentary evening reception. And the hotel offers plenty of places for attendees to sit and visit with old friends and make new friends. Check out the convention website for the Convention Code and telephone number to use when making your reservation.

We encourage you to check out the website as updates and new information is posted on the site.

www.2021TulsaUnion.com ML

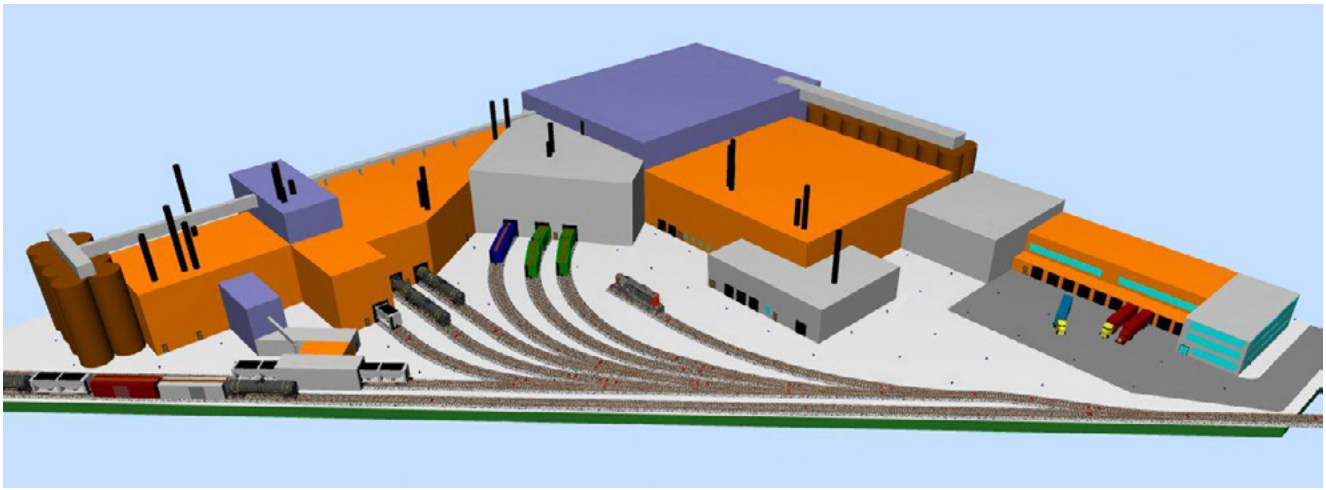
...RRduino...

+ by Speed

all photos and drawings by Lloyd Henchey, Ontario, Canada

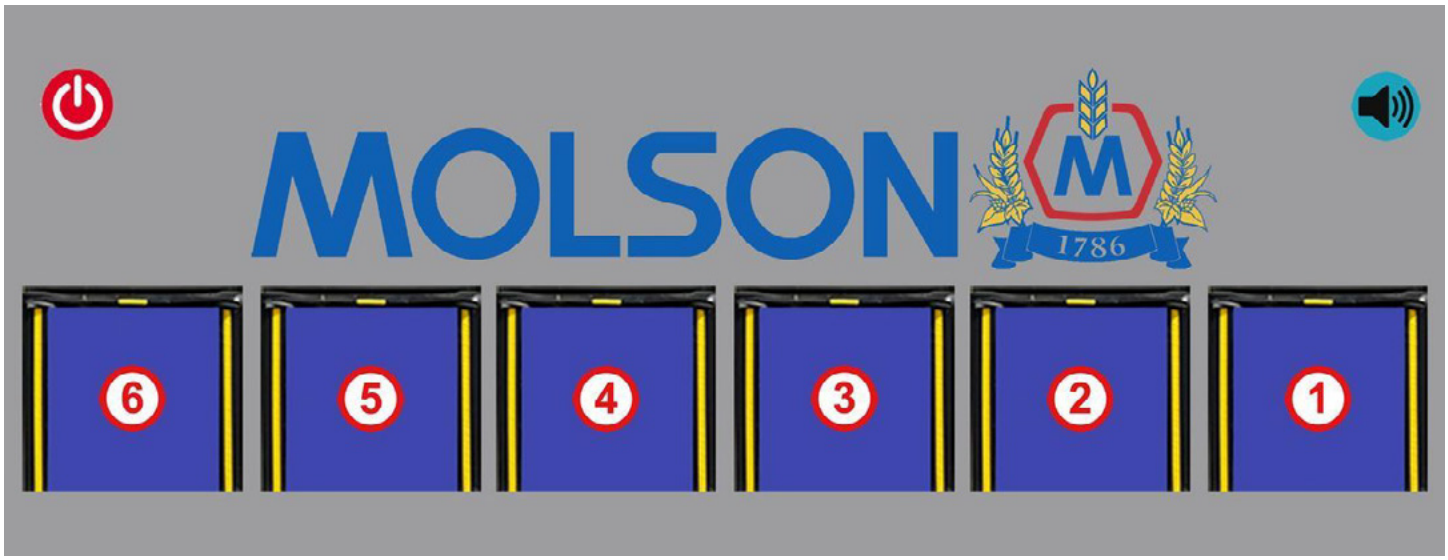
Roll-up a door please!

(with a State Machine in code, part 1)



MHO Junction's Molson Brewery in a 3D Layout View

We all know we can open and close close something with an Arduino and a Servo, but what if we want to a little bit more operating fun with some lights and sounds, all after a manager gives approval to open or close the door to the beer brewery before your engine is allowed to pick up or deliver a car?

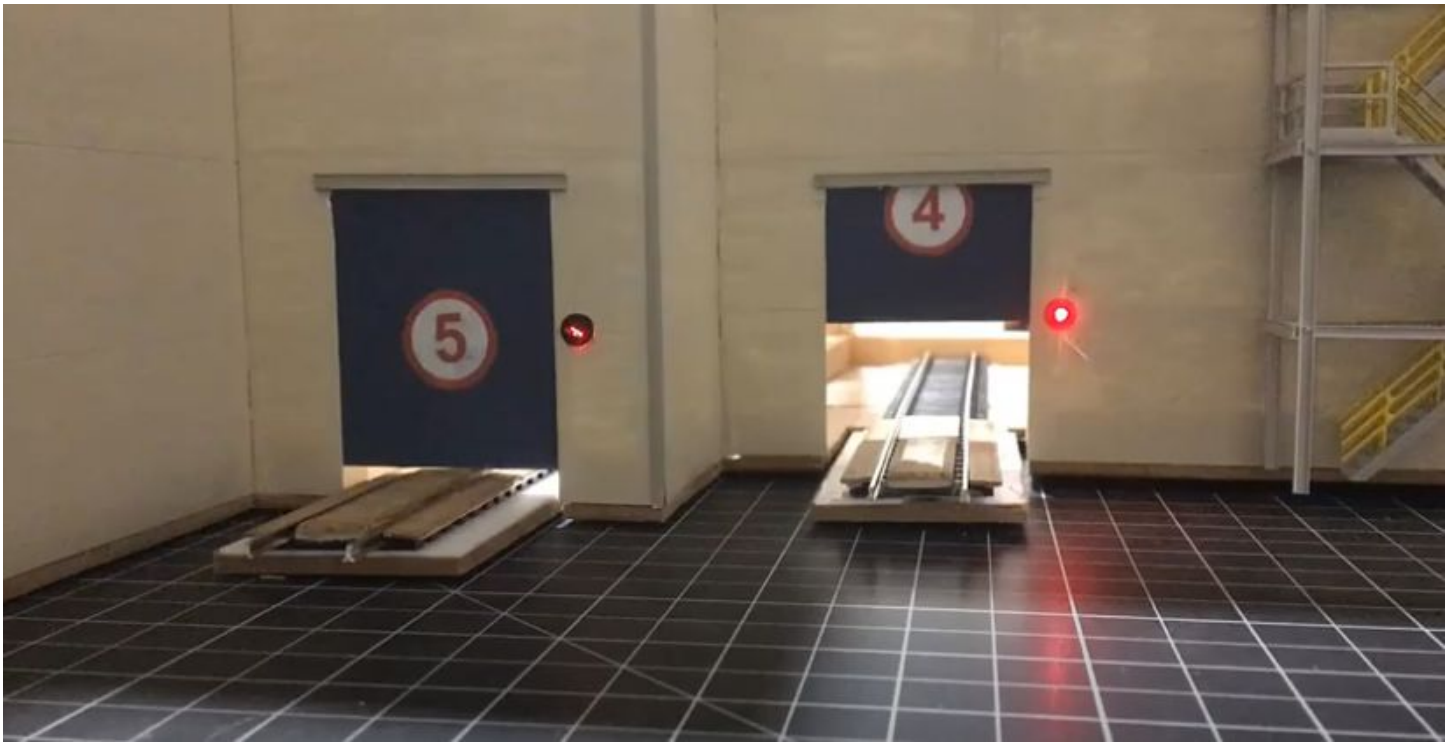


Control Panel at the brewery

Six doors under construction at the Molson brewery on the MHO Junction

Engine pulls up to the red light, shift manager (operator) grants permission, door raises up with alarms and a flashing red light, door goes all the way up, light turns green, engine or car can proceed! Same flashing red light going down and maybe different door squeaking noises.

All good articles start with a YouTube video: youtube.com/watch?v=-8EnpUgTqR4 !



This article will introduce you to a "Finite State Machine" or FSM, where you describe or plan everything that needs to happen with circles for states where things are in and with lines and arrows for when things happen.

What you need (*all the links embedded here, but also typed out at the end of this document, in case you printed the article and can't click on it here*):

1) **An Arduino Nano** with a USB mini-B cable (or Uno will do, but the Nano is less expensive)
2) Something to **power it with**, since you can't leave that borrowed PC in the train room.

To avoid soldering and splicing wires:

3) **Nano I/O Expansion Sensor Shield Module** has more than enough ground pins, one with each I/O pin.

And:

4) A **small servo** for every door you need to open, we can do 3 if your power supply has enough "oomf".
5) A button, key, **light sensor** or **infrared sensor** used for input for every door you need to allow access or interrupt light to open the door.
6) A common cathode bi-color **3mm LED** and 2 resistors, **1 kOhm** each (at first), one set for each door.
7) Optional **sound system from last article** with an MP3 uSD card and 3 sound files!

And as before,

8) The **Arduino IDE, free download** Version 1.8.13 is the latest at the time of writing.
9) Maybe the CH340 Device Driver: plug the Nano in with the USB cable and see if Device Manager gives you a Serial COM port (/dev/ttyACMx or /dev/ttyUSBx on a Mac or Linux). If Windows shows you a yellow icon, find the driver with Google, download and install the driver and then reboot the computer.

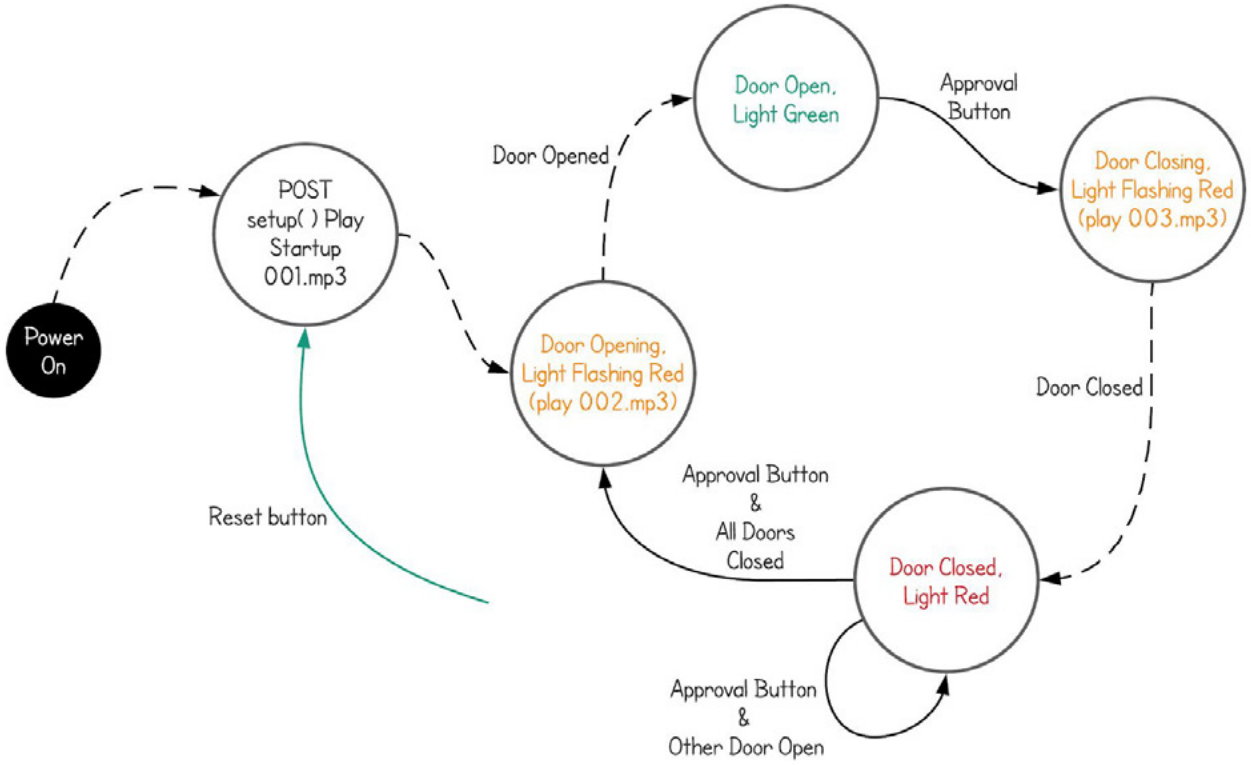
And last, but not least, the code to install for this project.

With all the bells and whistles, we need 5 pins per door (and two more to turn sounds on and off):

Input: access granted, a simple, normally open push button for the manager.

Output: the red signal, like a 3 mm or smaller red LED in a black disk.
Output: the green permission granted LED, which, combined with the red one, could be a bi-color LED as used in a search light.
PWM Output: the door's motion is controlled with a servo, needing a PWM capable pin to control this.
Output: an optional output pin to turn some sounds on, using the uSD card mp3 player from the last article (a serial interface might work better, so either a software UART or a clock and data pin, we'll do this instead). So two pins (RX and TX) for the whole system.

In order to start planning the code, we draw up a finite state machine. A state machine represents all the states your door and lights can be in and it shows how it transitions from one state to another based on what input has changed. Of course there are 3 sets of these, one for each door, sensor and signal...~~but since they do not have anything to do with each other, we only need to draw one of the sets.~~ Oops, feature creep, we only want a door to open if the other doors are all closed. So we will not leave that state unless all doors are closed.



FSM (Finite State Machine)

In our setup the door only opens on startup or with manager approval. All good state diagrams start with a darker circle to show where it all begins, Power On in our case. The dotted lines indicate actions that happen without human intervention, from Power On, it goes to the next state, POST, by itself, and so forth.

Again, from Power On, we move immediately to the POST (Power On Self Test) where we check if the sound module is happy, uSD card inserted and we play the first sound file as a part of the test. From here the state diagram transitions to the "**Door Opening, Light Flashing Red**" state, simply to avoid an accident when the power went out at the wrong time. We flash the red light and play the second sound file.

When a door is completely opened, the flashing red light will turn green, now in the "**Door Open, Light Green**" state. And this will happen to all the doors, but is not shown. Just know that not all doors have to be in the same state at the same time. It is only on power up that we send them through the same states.

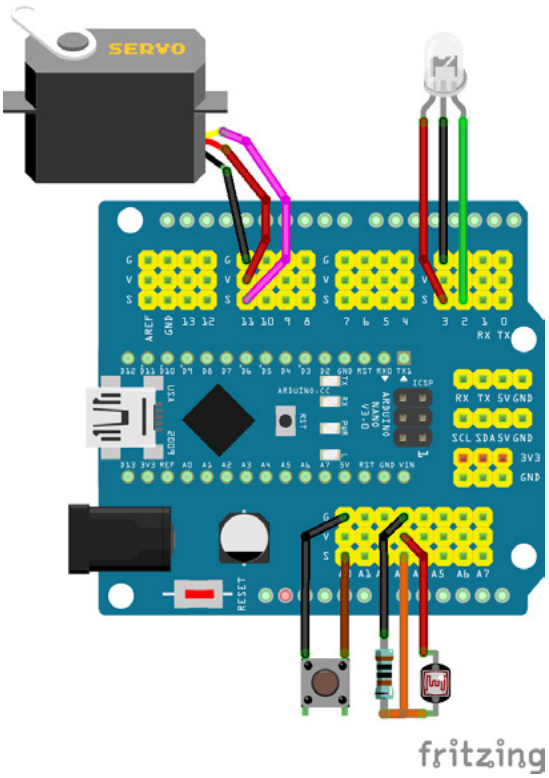
Here the Arduino waits for the Manager to press and release one or more of the Approval Buttons for each door. Upon press and release, the specific door will start closing, with the red light flashing and the "closing" sound playing, shown in the "**Closing Door, Light Flashing Red**" state.

Once closed, we enter the "**Door Closed, Light Red**" state, with the light now solid red (you could also change the requirements and have the light turned to off). Also note that not all our doors have to close at the same rate, or from the same height, so some might be closed before others.

From here, only one door can be opened at one time due to safety regulations at the plant. Silly rule, but the union is in charge, sorry. When the button is pressed for any door, it will only move to the "**Door Opening, Light Flashing Red**" state if all were closed. If the button is pressed and there is already an open door, we stay in the same state. But, if all closed, the door starts opening, flashing the light red, and we are back where we started when the power turned on, except only one door can be here now.

The state machine keeps the current state each door is in, and only moves to another state when the input with the line and arrow leaving the circle gets activated. There is no "Door Closed" or "Door Opened" sensor, but the software inside knows the position of the door, since it is setting the servo position, and compares it to the commanded position. When a door reaches the open or close commanded position, the state machine follows the dotted line automatically to the next state.

For part 1 of this article, we only show the wiring and code needed for 1 door to keep it a little shorter. You wire up the servo, the push button (approval) and the bi-color LED. We want to use a PWM pin for the servo, since we don't want the extra code needed for a software servo (just know that you could control a servo from any pin). PWM pins, those labeled with the '~' (tilde) symbol (D3, D5, D6, D9, D10 and D11) make life a bit easier.



Servo, bi-color LED and button connections to a Nano on the Expansion Board (thank you fritzing)
(The light sensor shown is another feature creep for a future article to dim the lights a bit at night time)

Servo installed behind the brewery door

Back to the State Machine, how do we create and use it?

First, you create an enumeration or enum for short to indicate which state you are in. This is literally just assigning a number to a word for each state (DoorOpening) that is a lot easier to read in the code, than remembering it with a number, like 4 for "**Door Opening, Flashing Red Light**". So enum defines a new type in C or C++, so just like you have int, bool and Serial or Servo, after the next few lines of code, you will also have DoorState as a type.

```
enum DoorState {
  POST = 0,
  DoorOpening,
  DoorOpen,
  DoorClosing,
  DoorClosed
};
```

And then we use this to create an array of DoorState types, to keep track of the state for each door.

```
#define NUM_DOORS 3
DoorState breweryDoorStates[ NUM_DOORS ];
```

Technically, we won't use the POST state much, since we think of it as the code that runs in the `setup( )` routine, which only happens after Power On, or if someone pressed the Reset button. Just note that the code won't set it back to POST ever again. Setting and checking the states, here we go:

```
#include "SlowDoors.h"
#include "BreweryLites.h"

#define NUM_DOORS 3

enum DoorState {
  POST,
  DoorOpening,
  DoorOpen,
  DoorClosing,
  DoorClosed
};  // all these need to be unique words and not strings used in the C/C++ language or your code.
    // Example: setup is not allowed ->  error: 'setup' redeclared as different kind of symbol

DoorState breweryDoorStates[ NUM_DOORS ];   // State Machine for each door

// SlowDoor( uint8_t servoPin, unint8_t buttonPin, uint16_t start, uint16_t stop, uint16_t updateRate )
SlowDoor *breweryDoors[ NUM_DOORS ] = {
  new SlowDoor( 3, A0, 70, 120, 50 ),
  new SlowDoor( 5, A1, 75, 125, 50 ),
  new SlowDoor( 6, A2, 60, 180, 30 )  // servo moves a little faster, since further travel
};

//BreweryLite( uint8_t redPin, uint8_t greenPin, uint16_t flashRate )
BreweryLite *doorLites[ NUM_DOORS ] = {
  new BreweryLite(  7,  8, 500 ),
  new BreweryLite(  9, 10, 400 ),  // flash a little faster
  new BreweryLite( 11, 12, 500 )
};

void setup( ) {
  Serial.begin( 115200 );
  Serial.println( F("\nRoll-up Doors version 1.0, 2020.11.01") );

  for( uint8_t i; i=0; i<NUM_DOORS ) {
    breweryDoorStates[i] = POST;
    breweryDoors[i]->Setup( );  // attach servo pin and INPUT_PULLUP button pin
    doorLites[i]->Setup( );     // pinMode both LED pins as OUTPUTs
  } // for
  // setup DFPlayer (not shown, see prior article)
  // play 001.mp3
} // setup( )

void loop() {
  // For each door, use switch to manage the state machine
  for( uint8_t i; i=0; i<NUM_DOORS ) {
    switch( breweryDoorStates[ i ] ) {
      case( POST ):
        // if playing, stop and play 002.mp3
        breweryDoors[i]->Open( );               // command the door to ...
        doorLites[i]->FlashingRed( );           // command the light to ...
        breweryDoorStates[i] = DoorOpening;     // new state is ...
        break;
      case( DoorOpening ):
        if( breweryDoors[i]->isOpen( ) ) {      // check if the door is ...
          doorLites[i]->Green( );               // set the light to ...
```

```
#include "SlowDoors.h"
#include "BreweryLites.h"

#define NUM_DOORS 3

enum DoorState {
  POST,
  DoorOpening,
  DoorOpen,
  DoorClosing,
  DoorClosed
};  // all these need to be unique words and not strings used in the C/C++ language or your code.
    // Example: setup is not allowed ->  error: 'setup' redeclared as different kind of symbol

DoorState breweryDoorStates[ NUM_DOORS ];   // State Machine for each door

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SlowDoor *breweryDoors[ NUM_DOORS ] = {
  new SlowDoor( 3, A0, 70, 120, 50 ),
  new SlowDoor( 5, A1, 75, 125, 50 ),
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  new BreweryLite(  9, 10, 400 ),  // flash a little faster
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void setup( ) {
  Serial.begin( 115200 );
  Serial.println( F("\nRoll-up Doors version 1.0, 2020.11.01") );

  for( uint8_t i; i=0; i<NUM_DOORS ) {
    breweryDoorStates[i] = POST;
    breweryDoors[i]->Setup( );  // attach servo pin and INPUT_PULLUP button pin
    doorLites[i]->Setup( );     // pinMode both LED pins as OUTPUTs
  } // for
  // setup DFPlayer (not shown, see prior article)
  // play 001.mp3
} // setup( )

void loop() {
  // For each door, use switch to manage the state machine
  for( uint8_t i; i=0; i<NUM_DOORS ) {
    switch( breweryDoorStates[ i ] ) {
      case( POST ):
        // if playing, stop and play 002.mp3
        breweryDoors[i]->Open( );               // command the door to ...
        doorLites[i]->FlashingRed( );           // command the light to ...
        breweryDoorStates[i] = DoorOpening;     // new state is ...
        break;
      case( DoorOpening ):
        if( breweryDoors[i]->isOpen( ) ) {      // check if the door is ...
          doorLites[i]->Green( );               // set the light to ...
```

```
          breweryDoorStates[i] = DoorOpen;      // new state is ...
        } // if
        break;
      case( DoorOpen ):
        if( breweryDoors[i]->wasButtonPushed( ) ) {
          breweryDoors[i]->Close( );
          doorLites[i]->FlashingRed( );
          breweryDoorStates[i] = DoorClosing;   // new state is …
          // if playing, stop and play 003.mp3
        } // if
        break;
      case( DoorClosing ):
        if( breweryDoors[i]->isClose( ) ) {
          doorLites[i]->Red( );
          breweryDoorStates[i] = DoorClosed;    // new state is ...
        } // if
        break;
      case( DoorClosed ):
        if( breweryDoors[i]->wasButtonPushed( ) ) {
          // count number of closed doors
          uint8_t closedCount = 0;
          for( uint8_t k; k=0; k<NUM_DOORS ) {
            if( breweryDoors[k]->isClose( ) ) closedCount++;
          } // for
          // and only open if all are closed
          if( closedCount == NUM_DOORS ) {
            breweryDoors[i]->Open( );
            doorLites[i]->FlashingRed( );
            breweryDoorStates[i] = DoorOpening; // new state is ...
            // if playing, stop and play 002.mp3
          } // if all closed
        } // if
        break;

      default: // should never get here
        Serial.println( F("oops...") );
        break;
    } // switch

    doorLites[i]->Update( );        // update the lights, green, red or flashing
    breweryDoors[ i ]->Update( );   // update the servo to move a step closer
                                    // or stay at its commanded position
  } // for
} // loop( )
```

The final result for this project was completed with two Nanos, two DFPlayer mini modules and two speakers. The reason for two of each: it is actually two separate buildings and we also needed more pins for all the LEDs (twelve) and buttons (six).

A switch was added to power the whole brewery complex and another to turn the sound completely on and off. Everything is now controlled through the panel on the facia, as shown with the Molson logo.

~ Lloyd Henchey

Note that we only have one sound player, and whichever action happens last, will stop the previous sound and start the sound just requested. Not perfect, but better than nothing, I guess!

Once you have all this working, you can add a few more things like checking if the track under the door is clear before closing it. You could mix some sound files on your computer and play the sounds for opening and closing a door at the same time. You can disable the sounds after 3 or 4 times for those of us who are not fond of screaming alarms, or have an enable/disable input to turn it on and off. Or you could install and enable that light sensor to change the brightness of the red and green light? The height of the door is the limit!

Article and code online too, here. In part 2, I will show the code for the `BreweryLite` and `SlowDoor`.
Speed

LINKS:
An Arduino Nano:
https://smile.amazon.com/REXQualis-Board-ATmega328P-Compatible-Arduino/dp/B07WK4VG58/ref=sr_1_1_sspa
Power it:
https://www.walmart.com/ip/iPhone-Wall-Pro-Air-Port-Plug-Pro-Max-8-7-X-More-Mini-Super-PowerPort-Phone-Output-iPad-Charger-Foldable-Compact-2-4A-USB-11-11-Anker-4-2-Mini-Samsun/799628659
Nano I/O Expansion Sensor Shield Module:
https://smile.amazon.com/WYPH-Expansion-Arduino-Compatible-Duemilanove/dp/B07KCVJ6RR/ref=sr_1_3
Small servo:
https://hobbyking.com/en_us/hobbykingtm-hk15178-analog-servo-1-4kg-0-09sec-10g.html
Light sensor:
https://www.amazon.com/eBoot-Photoresistor-Sensitive-Resistor-Dependent/dp/B01N7V536K/ref=sr_1_20_sspa
Infrared sensor:
https://www.amazon.com/Willwin-Infrared-Obstacle-Avoidance-Intelligent/dp/B0776RCLH6/ref=sr_1_8
3mm bi-color LED:
https://www.mouser.com/ProductDetail/Lumex/SSL-LX3059IGW?qs=sGAEpiMZZMtmwHDZQCdlqVsz6Sp3LtaXwScsujkhKSY%3D
1 kOhm resistor:
https://smile.amazon.com/Noblik-0-25W-Carbon-Resistor-Postage/dp/B085PVRV7V/ref=sr_1_2
Arduino IDE:
https://www.arduino.cc/en/Main/Software
Sound system in prior Marker Lamp:
https://archive.org/details/marker_lamp_winter_20/page/n12/mode/1up

Finite State Machines: https://brilliant.org/wiki/finite-state-machines/

MOLSON 1786

2021

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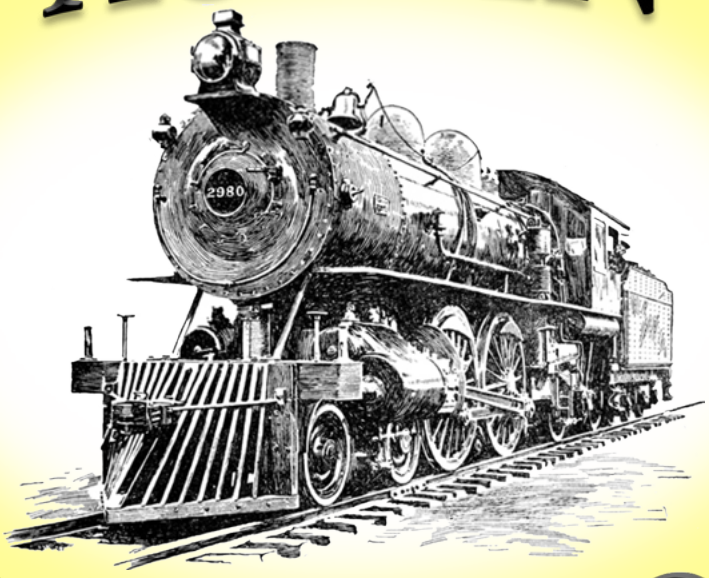

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The 2021 Tulsa Union Convention is the joint production of the Midcontinent and Lone Star Regions of the NMRA and hosted by the Indian Nations Division.

Watch for Future Announcements- More to Come!

Inside NMRAx

An interview with Gordy Robinson who spearheaded its creation

by Jeff Palmer, MMR

Gordy Robinson

I would like to introduce you to Gordy Robinson whose home is Orkney, Scotland. If you were fortunate enough to participate in or attend any of the NMRAx sessions, you are probably familiar with Gordy, as he is the main force/front man behind the event. I had the privilege of meeting Gordy through a couple of mutual friends, Mike Mackey and Gert "Speed" Muller. Gordy and I got together via "Zoom" the first of December for this interview.

Interviewer:

Gordy, I meet you when I was asked to do a scenery clinic for NMRAx back in April. Let's go back to those days and learn how NMRAx came about. Was the NMRAx a result of COVID-19 and the pandemic?

Gordy:

It was not an idea that originated in 2020. Actually the concepts for NMRAx began in 2018. If you were to go back and listen to some of my appearances on various podcasts, I have talked about "virtual". The area where I live is remote & rural and the ability to get together is difficult at best, so the concept for "virtual meetings" was born out of necessity. The reality, at that time, was "Why would I want to attend a virtual meeting when I can attend an in-person meeting and get so much more (interaction, face-to-face, higher quality/higher value)?" The concept was slow getting started. For those of us who were rural, it was a godsend. We've conducted monthly meeting now for more than two years.

Not deterred by the slow start and acceptance, I continued to build up a pool of people who could help me reach my goal, and help me develop the skills necessary to succeed. The early meetings were conducted on "Free Conference Call", using their meeting facilities was difficult. Like "Zoom" or any other group video chats, when there only a few people meeting, it's a great environment, but as the environment grows, it's hard to control the chaos.

In February of this year, I was working with the NMRA Social Media Team, of whom I'm a member, and we were discussing doing a "Facebook Live" event with the NMRA folks in the Twin Cities Division (TCD), Tom Gasior MMR and Ken Zieska.

In early March, when the TCD "Live" sessions were done, they were popular not only locally but people from around the world took notice. In early April, about the 12th, when the pandemic was just a few weeks old and only going to last a short while, it began to take its toll on local meetings and conventions. Armed with the success of the TCD event, I talked to the Media team and said "I bet we can do this and we could do it for 24 hours and we can get people from all around the world to participate." Accepting the challenge, for the next 12 days Martyn Jenkins, Jordan Kramer, and I recruited Gert "Speed" Muller, and Brad Anderson to form the NMRAx technical team.

Over the next 12 days, this team recruited 24 clinicians who were going to live stream using Facebook, and NMRAx was born. Four days prior to the go-live on the 24th, it

was determined that using Facebook Live with each clinician streaming themselves was probably going to be a disaster. The coordination of the 24 clinics, making the transition from clinic to clinic, and presenting a smooth professional image just wasn't going to happen.

The quick-thinking Martyn Jenkins suggested that we use some free software that "gamers" were using for their events called OBS Studio (Open Broadcaster Software Studio). This software provided us with the control we desperately needed and helped us avert the pending disaster. We still had rough spots, put the overall presentation was smooth and transparent to the audience.

Just prior to the 24th, Martin and I developed the process that would allow us to conduct the clinic and then provide for the Q&A after the clinic using Facebook "Live" and OBS. The software package allowed us to provide the feel, the format, and control of a face-to-face event that you can't normally get from a virtual event. April 24th, the first NMRAx event is history and the results are in.

Interviewer:

Yes, you're right. NMRAx was a resounding success. Gordy, let me recap and make sure I'm still with you. Software wise, the major packages used were Facebook Live, OBS Studio, Whereby.com.

The technical accomplishment was great. Were there other requirements/goals that you and your team set out to accomplish with NMRAx?

Gordy:

As I said earlier, Martyn and I worked out the details of the presentation style we wanted in a late-night session just prior to the 24th. We wanted to reach the widest audience possible and sending emails with URLs and passcodes was not really an option. What we wanted was a concert – "come one come all". Emails and passcodes are tools used to limit an audience. We wanted to allow an unlimited audience like what you would see at an NMRA Convention. This would require that the NMRAx's agenda be placed online for easy access allowed the attendees to pick and choose the clinic they wanted to attend – like if you were attending a convention.

The other requirement would be to mass mail and announce NMRAx to the NMRA community; i.e. NMRA Facebook page. Word of mouth would take care of the rest. Again, the drop dead date was April 24, 2020. The Team went to work. We were in the eleventh hour, but we pulled it off. On the 24th we were live streaming it from a server in Australia. We didn't have time to practice or prepare. We just went live.

Our first clinics had over 500 in attendance and as each of the clinics were posted to YouTube, we were getting thousands of hits/views. Within 24 hours, we were an Internet hit - a must watch if you were a model railroader. We were blown away by the results.

Interviewer:

What was the NMRA board's reaction? With the obvious success of NMRAx, you would think they would be exuberant. I know I was excited for the NMRA. I thought they were finally understand the power of social media.

Gordy:

To be honest it was put together so quickly we didn't really have much time to prepare them, how do you really explain something that has never happened before. So really, they didn't know very much in advance. We didn't really have time to ask for their permission. The only person who knew what was going on was Christina Zambri since she was responsible for marketing and the NMRA's Facebook page. We just did the job.

At the time, COVID-19 had shutdown gatherings worldwide. What we wanted to do was provide an alternative to the local loss of meetings while introducing others to the NMRA. Some of the clinics were layout tours. This was an opportunity for someone in Minnesota or Texas to see layouts in Australia or Europe that they might never see otherwise. This was huge.

It allowed the NMRA to showcase who and what they are about, with a global reach that I don't think any other Model Railroading organization could deliver. It was a way for members to connect and for novices and non-members to learn about an organization that promotes model railroading. It allowed the NMRA to showcase their value to the hobby.

Members got to see clinicians from other parts of the world. The Christmas Tree railroad crowd got to see layout possibilities and a future to work towards. The independent railroader got to expand their skills and develop new ones. As it turned out, it was a seismic shift or world changing event for model railroading. People were sharing the NMRAx on their Facebook pages and commenting on how special this event was.

The next thing that happened was our Facebook page started receiving messages about what they liked, and one of the neat things discovered was neighbors found out about other neighbors who were also into trains, or they were so impressed with what they saw, they were going to build a layout.

So here we are, we got this baby called NMRAx, what do we do? The acceptance of this event was beyond our wildest dreams. It soon became apparent that this pandemic was not going to go away anytime soon. Previously, I was a general manager at a hospital. I went through SARS, Swine Flu, and now COVID-19 so I could see this was going to be with us for a while. With the pandemic happening on a global scale, the Team, and I felt we were going to lose many of the regional conventions and possibly the national NMRA St. Louis Gateway Convention.

In May, what we decided to do was, every two weeks, we would do 12 hours of clinics. We will record these clinics

so that in July, if we should lose the Gateway convention, we could playback these recordings and basically created the initial ideas of the Gateway-x convention. The Team concluded that these recorded clinics should be made a part of the NMRA YouTube Channel. What happened is, with the success of the early NMRAx clinics, by June, we now had a list of hundreds of clinicians volunteering to give a clinic. As we went through the months of May and June, we continued to refine the process. We introduced the concept of "Hosts" and smoothed out the rough spots. We had a lot of sleepless nights.

Speed, Jeff Rykiel, and Martyn Jenkins during the 2020 NMRAx

When the national convention was canceled, due to COVID-19, we were ready. We didn't need the recorded clinics, we had volunteers. We produced GATEWAYx. While we were working on GATEWAYx, the SER (NMRA Southeastern Region) asked us to help them with their convention since it too was canceled. For the Saturday of the SER convention, we did three simultaneous live streams. Our process was smooth enough that we could stream 24 one-hour clinics in an 8 hour period. Since that time, we have also aided NER (NMRA Northeastern Region) to do their regional convention, and worked with Trainfest to help them prepare for the delivery of their own convention.

Interviewer:

What are your plans in the near term?

Gordy:

Even with the introduction of a COVID-19 vaccine, it appears we are still months away from anything that resembles normal, face-to-face, meetings, so we are gearing up to provide 6 to 8 hours of content monthly. Our goal is to move more into hands-on type of clinics like Make-n-Takes. The goal is to provide more in-depth education. Our first roll-out of this type of broadcast will occur in January 2021. I think this will help revolutionize how we (NMRA) do education, mentorship, and support.

What we have learned doing the NMRAx broadcasts is, for every hour of broadcast, there are 1-4 hours of pre/post production time spent setting up and editing the videos.

Interviewer:

By now, the NMRA board had to be aware of NMRAx. I know I heard about NMRAx from previous co-workers with whom I shared my interest in trains. It had been years since I had heard from them, I had retired from the company that we worked for, so I can't imagine the board was in the dark any longer. What happened with them?

Gordy:

Actually it was 24hours after the first NMRAx that the NMRA board became fully aware of what NMRAx was all about. Back in early April, we made a request to the NMRA IT Team to help us get virtual meetings off the ground by letting us use the NMRA's GoToMeeting account. We were told if it was not for a national meeting, GoToMeeting was not to be used, because there is a cost for using the software. We didn't bother asking twice.

The lack of cooperation from some officers was unfortunate but we moved on to our own platform and found alternative tools. Everything we use is free and open source. On the whole the majority of officers and BOD members have been very supportive of NMRAx as the months have passed and we have a good working relationship becoming an official program of the NMRA Meetings & Trade Shows committee.

Interviewer:

Let me see if I understand, the NMRA refused to allow you to use a product they already owned/licensed to help them stay relevant during a pandemic. By late April the whole world had become aware of the effects of the pandemic, and the handwriting was already on the wall on what the future held. I can understand why long term this might be an issue, but failure to support a startup of a product that is used to increase NMRA's awareness is disappointing. This event could be written off as a marketing expense. What did they do next?

Gordy:

Sometimes organizations lack vision, especially in times of crisis and they are responsible to ensure that the resources they have are used in a way they feel is most beneficial to running NMRA INC. They did offer to provide financial support, but it came with strings. The main string was simple, we would have to restrict who could view our content to ensure it was only available to NMRA members.

As the Team and I considered the offer, this was like a stake through the heart. We did not want to lose the engagement with Model Railroaders, NMRA members or otherwise, who were now interacting and seeing the NMRA as a direct benefit to them. For those board members who did not understand the benefits after the 24th event, the work and

feedback since has turned that tide.

We felt the need to remain agile. The Teams view was, this is a golden opportunity to advertise an organization who has spent decades developing and enforcing standards that make the hobby fun, compatible and less frustrating. With the clinics, those that are not NMRA members can see what the organization provides to model railroading, and with the layout tours, they can see what to aspire too. Things were happening so fast. The momentum, especially in the early days, was overwhelming. This needed to be more than just a member's benefit, the second string.

Live streams will always be free to all, but as we get into the next phase, Make-n-Take clinics, this may be a NMRA member's only aspect to NMRAx. As of right now, we don't know how this will be handled. We're still developing the technology. It would make since that NMRA members would be at the head of the queue to take part, but does that require that it be a member's only event? We're not sure.

The interesting part about all of this is our partnerships that we've formed, like with Daylight Sales. Every NMRA or NMRAx garment sold, the NMRA gets a part of the sale. There is also now a new NMRA member discount from Mini Prints 3D printed detail parts. These are not big revenue areas but they represent what can be done future. What we are hearing is people around the world are saying they are joining the NMRA because they see value in the organization because of NMRAx.

I have not seen the numbers, but I have been told that during this pandemic, NMRA's membership numbers are holding steady and not declining as you would expect. Really for a social organization like ours you would expect us to be on life support during a period when in person meetings are suspended and have been for such an extended period.

Here's an example of what I'm saying – I live about 200 meters from a neighbor who has contacted me because of NMRAx and has re-joined the NMRA because of the value he experienced viewing NMRAx. We all know you don't have to be an NMRA member to be a model railroader.

Look at the world class layout of Rod Stewart's. People are building layouts and running trains. NMRAx is reaching these people. Can we capitalize on the new awareness?

NMRAx is a sales tool. It is the grass roots event that is bringing a lot of attention to an organization that has a history of doing good for the hobby. NMRAx is exposing a class of model railroaders to the public that have long been hidden, not by any fault of the NMRA, but hidden none the less. NMRAx has allowed the talents of those who have been working behind the scenes, only know to the NMRA community, to appear on a larger stage.

Interviewer:

What does it cost the NMRA to support and host NMRAx?

Gordy:

You will not find a budget line or expense line on any of the NMRA reports. NMRAx is a zero expense item. That does not mean that the NMRAx is free. As I have already said, our partnerships are actually bringing in money to the organization. Our YouTube channel that contains 235 hours of content has subscribers that number is now more than 2,500, and it is generating revenue. Our expenses are more than covered. We are a marketing tool for the NMRA.

Interviewer:

Do you know or have a feel for how NMRAx has impacted the NMRA?

Gordy:

No, not really. We only know the impact by channel subscribers, views, and comments made on social media. There are no tools in place to quantify our impact. That's like asking how a car ad on TV affected the sale of a vehicle. There is no direct relationship. What we do know is the persistent presence of a name or a logo will drive decision making, so having the NMRA name out there will draw members, but more importantly, it will make the NMRA better known for its educational clinics.

An increase in followers leads to an increase in customers, in our case members and an increase in members leads to an increase in active volunteers or repeat customers who make our organization successful. Everyone wins eventually it's just the circle of marketing, you can't avoid it increasing followers ultimately benefits the organization in the future.

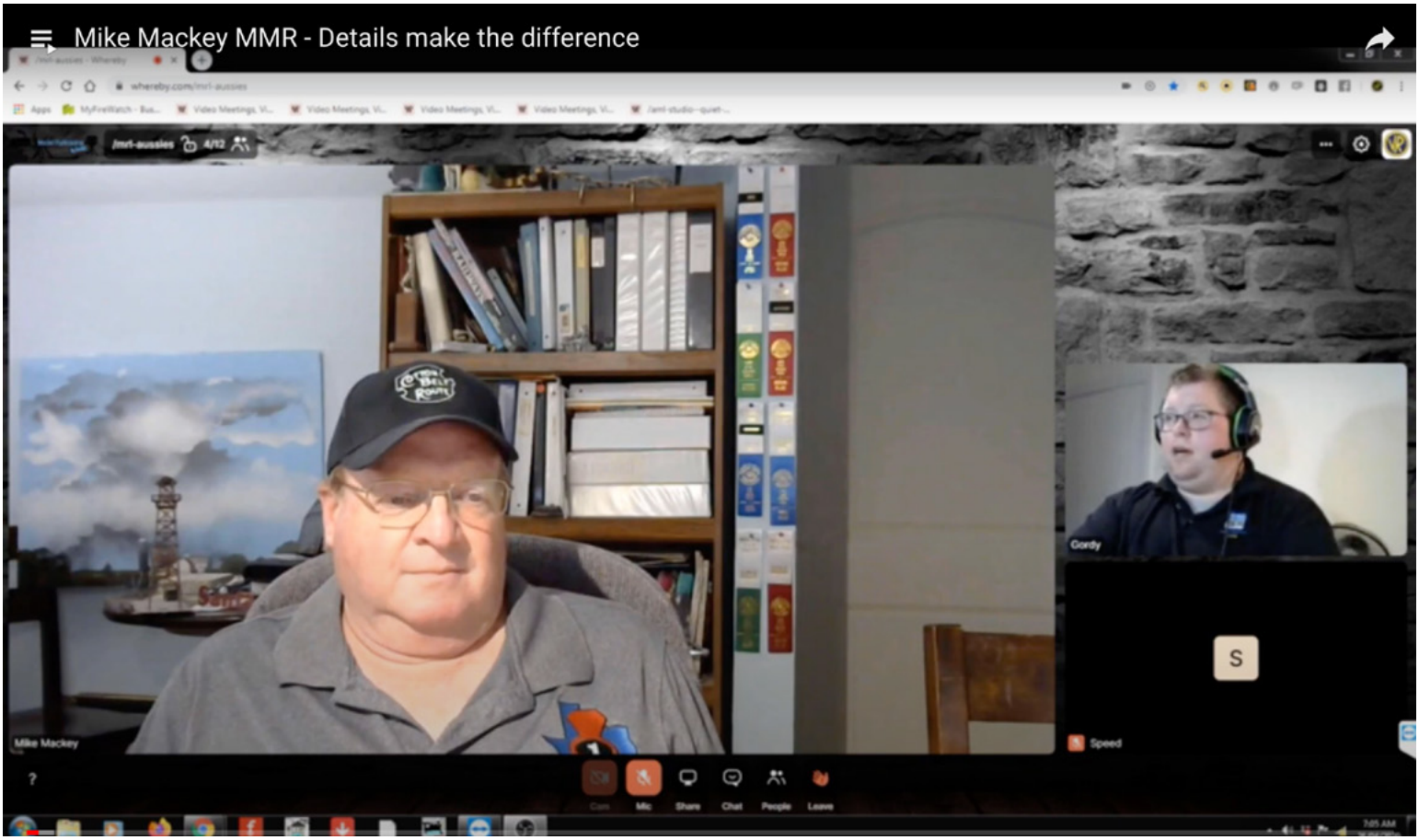
Today if you want to know what the standards are for couplers, track, switches, DCC, or LCC, just go to the NMRA website and download the documents. These are all free to anyone. Buy a standards gauge. No membership required. NMRAx streaming is free. Again, this is marketing. That does not mean we will not develop content that is available to members only. In fact, that is being looked into.

Interviewer:

Does the NMRA have the IT infrastructure to support NMRAx, its current 235 hours and growing content or bandwidth to support the streaming requirements?

Gordy:

No, not really. Our IT infrastructure needs significant investment. The NMRA has a number of working groups developing and revising standards. If we have the unfortunate experience where a member of one of those groups has the latest and only copy of that document on their laptop and passed on to the great railroad in the sky, how do you get that document back? We lack the infrastructure to recover that information. The NMRA videos on the NMRA member's area of the website are hosted by an external video hosting service



Mike Mackey presenting "Details Make the Difference" with Gordy Robinson moderating during the NMRAx online convention

called VIMEO. You can go and lookup what they charge to maintain the videos and the subscription charges for the subscribers. It's not expensive, but it's not free either. Currently our YouTube channel brings in money to the NMRA. We are currently expecting to double our online content next year and further increase those subscribers and followers.

NMRAx has done nothing but make money for the NMRA, but what is more important is, we have not spent a single dollar of NMRA money. The money is not important to us. It's the positive response and acceptance of the NMRA that brings us the greatest joy. It's the biggest thing that has happened to the NMRA in years.

Interviewer:

The NMRA has the IRS designation of being a 501(c)(3), a not-for-profit organization, who has declared themselves to be in the business of educating folks about trains, more specifically model trains. In fact a few years back, the NMRA was under review by the IRS for failure to live up to their self-declared designation, and yet, what I'm hearing is the lack of leadership for the role that they chose which translates to their lack of perform for their self-declared role.

Am I wrong about my understanding? Here you are, performing the role that the board obligated itself too, and they are fighting you. What's going on?

Gordy:

I don't know about their 501(c)(3) issues. What I do know is we think of ourselves as a membership-only organization. I have been told that on more than one occasion. My personal ethics require me to be the best I can be. It's important to do good and good will follow. What we did with the NMRAx was doing good for others. We promoted a great hobby, and a great organization. Those were the reasons why we did what we did. We want people to get involved with the NMRA. I think that came across. Let me provide an example.

There was a member in the UK who is now a member in the Silicon Valley Line, who remotely operates that layout in Northern California. He learned about that layout through NMRAx, and he has completely revolutionized his enjoyment of the hobby. He now feels more connected to the hobby than he has ever been and is enjoying it more. This is just one example from one comment submitted to us. There are dozens more. In short, NMRAx has allowed the membership to stay connected, and provided needed advertisement to those who should join the NMRA.

Interviewer:

I think my point was, where does the NMRA advertise? I can't remember an ad for them in Model Railroader which you can find on the magazine stand. I see ads in Railroad Model Craftsman, and Narrow Gauge and Short Line Gazette, but both of these are publications geared toward the more

serious already committed model railroader and not generally available on the magazine stand. I don't see the NMRA reaching out to the public and trying to expand its membership, but that's what you did with NMRAx. Again, am I seeing this wrong?

Gordy:

The NMRA views itself as a corporation and the responsibility of a corporation is to make money for its shareholders or in our case, as a not-for-profit to provide benefit to the members. NMRAx did bust that model. It reached novice and pro. It reached want-a-be model railroaders and professional builders. That's why the NMRAx was a seismic shift for the NMRA.

My view of the NMRA is that it's about model railroaders - those are the real shareholders, not just members. Every model railroader for over 80 years has benefitted in some way from the activities of the NMRA. My role on the National BOD gives me the opportunity to work with many of the people who support standards within the hobby. One of the groups the BOD is currently working with is the LCC standards group. Just like DCC, LCC affects more than just the members of the NMRA. In fact, all of the NMRA standards affect more than just the members of the NMRA. If we fail to provide benefit to model railroaders, we will not be a necessary part of the world of model railroading, we will cease to exist.

NMRAx is what I and the team were able to do as ordinary members of the NMRA and bring light to those dark areas of the hobby. What I mean by "dark areas" is, areas where each individual model railroader lacks knowledge – educate them. Doing this keeps me founded in my goals of "Honesty, Integrity, and doing right for model railroaders."

Virtual meetings need to continue past the pandemic days. One of the things we've learned by doing NMRAx, is there are more than just shut-in's who benefit from virtual meetings. We're seeing members attend virtual meeting that have not attended a face-to-face meeting in years. We have the inexperienced who know how to use Google but don't know to reach out to the NMRA. Then we have the traditional sick, elderly, and injured who want to attend but can't. For too long we have allowed model railroaders to be left behind. We need to stop that. Like General Hal Moore said "First on the battle field, and the Last to leave the battlefield." OK. I'm stepping off my soap box.

Interviewer:

Weren't you recently appointed as NMRA's At Large World Wide Director?

Gordy:

Yes. Jack Hamilton MMR had to step down from the position and I was appointed to fill the remaining two years of his term.

Interviewer:

I know that many of us had to sign a petition to get you on the ballot to run for NMRA President. How did that turn out?

Gordy:

Well as members will soon see my name is on the ballot, the petition required 50 signatures and we were well over 150 at the last count and at least one member from every region of the NMRA globally signed the petition. I guess it would have been nice to say every division but members were not required to provide that information so I can't tell.

Interviewer:

Any final thoughts?

Gordy:

If NMRAx taught us nothing else, model railroading is far bigger than just the 18,000 or so members of the NMRA. NMRAx has connected into this larger group and raised the question, "What can we do with it?" NMRAx has emphasized the point "you don't have to be an NMRA member to be a model railroader." Interest in model trains is alive and doing well.

I don't know about you, but I've heard for years how model railroading was dying, yet 2020 has been a banner year for the hobby. Sales of trains and related kits, and hobby supplies are through the roof. Those of us who are members of the NMRA know that the NMRA will help those who are not members become better modelers. It also raised the additional question "How do these modelers not know about the NMRA?" Every train set sold, has to meet the NMRA standards.

If they choose DCC to power their train, they are using an NMRA standard. The NMRA is a major component of the hobby, yet no one knows this. NMRAx has pointed this out to us. Now we need to do our work and figure out how to show this community the value of the NMRA.

Interviewer:

I, for one, have enjoyed the NMRAx sessions and videos. The education presented is top notch and provided by clinicians who have actual experience in what they are teaching. Gordy and his team have made the NMRAx experience a pleasure, and informational. If you're not a YouTube subscriber, then you're not paying attention. Go to YouTube and do a search for NMRAx. You will get a series of videos. Pick your pleasure and then subscribe. ML

nmra

virtual model railroad convention

NMRAx Christmas Special

6 Clinics!

Sunday, December 27, 2020 - 1:00pm to 7:00pm

Live on the NMRA Facebook group
https://www.facebook.com/groups/nmragroup/
Or just watch along without a Facebook account
https://www.facebook.com/NMRA.or
Or on YouTube
https://www.youtube.com/channel/UCHw-7-1FWB5zQgTM0ZVY-Yw

NMRAx Hogmanay 2021

Fireballs swinging or decorating herrings, you choose!

Thursday, December 31, 2020 - 6:30pm to 8:30pm

Live on the NMRA Facebook group
https://www.facebook.com/groups/nmragroup/

Or just watch along without a Facebook account
https://www.facebook.com/NMRA.org
Or on YouTube
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- Educational focus on prototype modeling, operations and technology
- Over 100 terrific clinics
- World-class Bay Area layouts on tour
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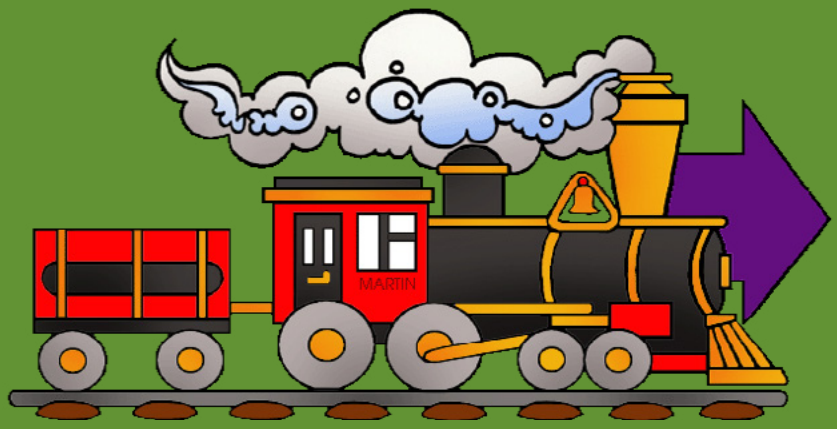
- Host hotel – Santa Clara Marriott. Ample meeting room and SIG space. Discounted room block opens soon.
- Niles Canyon Railway, Roaring Camp & Big Trees narrow gauge, & SP narrow gauge to ride
- Great local attractions and tours like Santa Cruz mountain wineries, Filoli estate, Levi's Stadium and more



Wanted! Nominees for the LSR 2022 Youth Award

- **Who:** Any boy or girl 18 years old or younger with an interest in model railroading.
- **Where:** One nominee from each LSR Division.
- **A past awardee:** May be renominated for another year if they meet the qualifications specified in the LSR Constitution. **Contact Jim Lemmond jimlem@comcast.net**

How: Fill out the special Youth Award Membership Form available on **http://www.lonestarregion.com/**

When: Submit your nomination to **your LSR Division Director** by December 1, 2021.

For more information contact:
Jim Lemmond, Youth Chairman: **jimlem@comcast.net**

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Pike ads are $8 per year and dealer ads are $20 per year.

Payment should be made out to:
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Contact Speed Muller
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Ads can then be sent as a JPG file attached to an email to:
rileytriggs@gmail.com

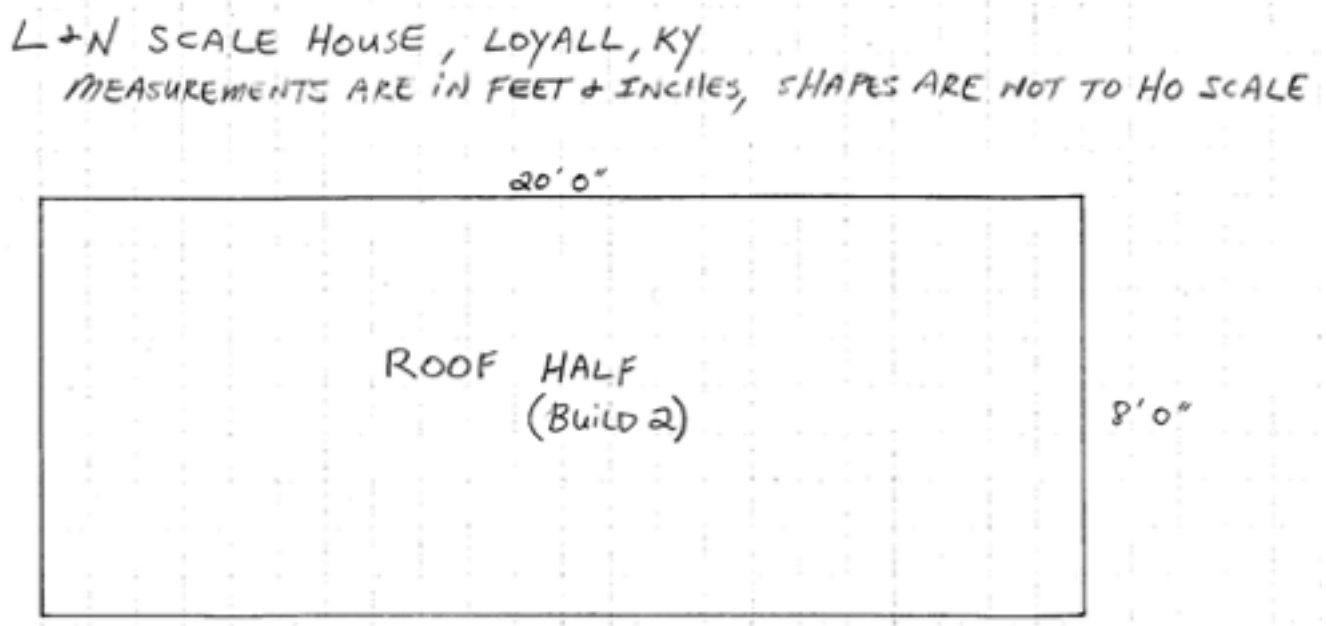
PART 1 – LOYALL YARD SCALE HOUSE

MODELING L & N

Scale House, Scale Tracks, and an L & N Scale Test Car

by Michael Harang

My uncle, James Watts, was a Claims Agent, working for the Louisville & Nashville Railroad his entire career. He mostly handled claims within the state of Kentucky. His family frequently traveled from their home in Louisville, Kentucky to visit my family in New Orleans, and rode on L & N passenger trains for the trip. I remember my mother telling me that she arrived in New Orleans aboard the L & N with my sister and oldest brother in 1952 (before my older brother and I were born), greeted by my father, whom had moved to the city a few months earlier to begin work. The household possessions were shipped by motor carrier.



Even though my father was an accountant, I heard that he worked on a rail maintenance crew in his younger days for the L & N. When I was very young, I recall pleading with my grandfather to take me to the nearest railroad crossing to watch trains. He did appease me, taking me in his Pontiac to the intersection of Airline Hwy and David Dr. in Metairie, La., and my fondness of trains grew with each outing we made. We watched the KCS switch the yard and industries there. I suppose that this background and my family ties with the L & N are the reasons why I chose this fallen flag to model.

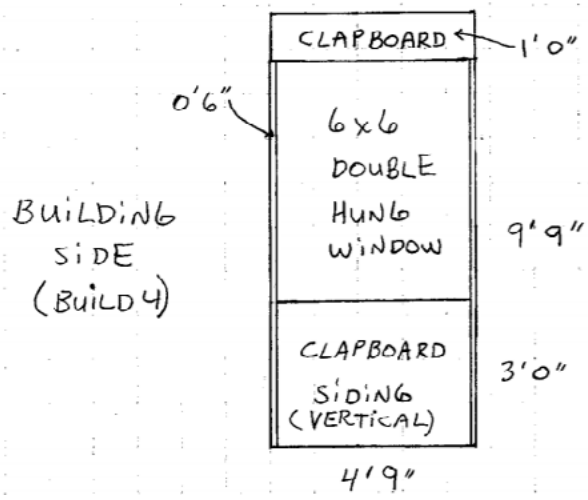
In this first of the three-part series, I will show how I constructed my HO scale version of the scale house located in Loyall Yard, in Loyall, Kentucky. Part 2 will focus on the dual scale tracks in the Loyall Yard. And finally, In Part 3 will highlight the construction of a HO scale L & N Scale Test Car that might have been used at Loyall to calibrate the scales there.

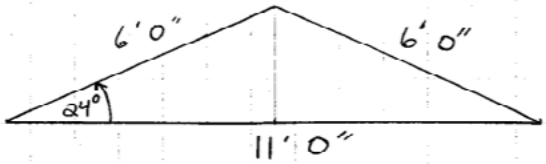
The prototype

As a major coal hauler, the L & N weighed coal hoppers and gondolas to accurately bill the customer and to determine train weight. Loyall was the major mine terminal for the Cumberland Valley Division of the L & N. The yard there contained seventeen tracks, an engine terminal, a nine-stall roundhouse, a 100' turntable, and an impressive four track coaling tower. Loaded coal cars would arrive at Loyall from nearby mines and would need to be weighed before leaving the yard. The large amount of coal cars in this location necessitated have dual scale tracks, using both sides of the scale house. And, this yard contained two scale houses with two scales each, for a total of four scales. No waiting! A through search though the books and magazines that I have, as well as the internet, provided several photos of this structure and the surrounding area. Page 105 of Ron Flanary's book CV Album contains a photo showing two sides of the building. And, the internet site RailPictures.net has two different photos taken from the same vantage point that show a third side of the building, one with a loaded coal hopper on the scale! Let the building begin.

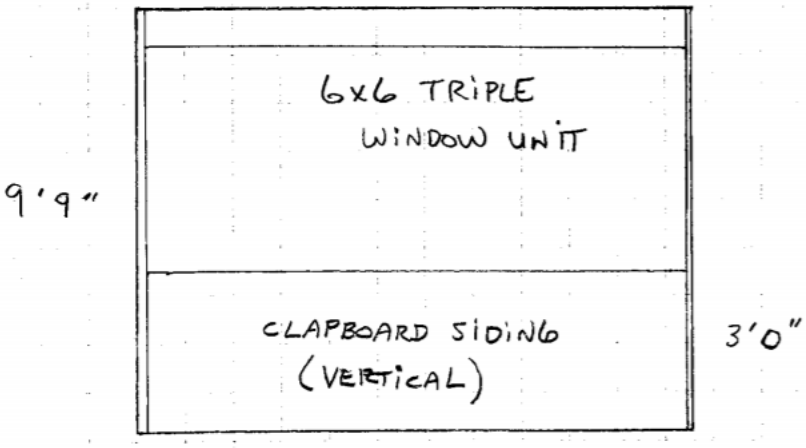
Sketching the structure

Armed with these several photos, I reviewed the Tichy catalog, and ordered a door and windows that appear to be similar in size and type as the prototype needed for the project. As I only had views of three sides of the building, I was not able to completely determine if the building had two doors. And, I could not find any plans or sketches of the actual building. Also, one of the photos shows what appears to be the end of a fuel tank mounted on a stand on the un-photographed side. Certainly, no one would place a fuel tank in front of a door, would they? And, the location of the smoke jack on the roof lends to my belief that the stove was most likely placed in the middle of that un-photographed wall. This assisted in my decision to have only one door. Once these parts arrived, the door measurements were used to estimate the dimensions of that side of the building. With one side drawn, the remaining seven sides were estimated and the below sketch was produced.

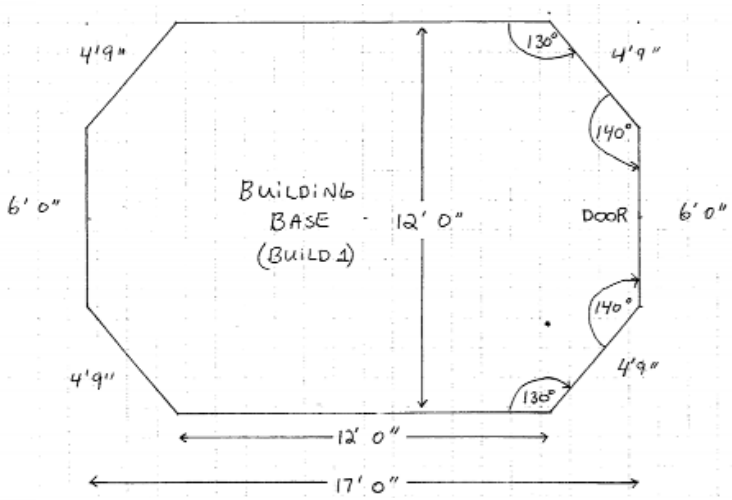


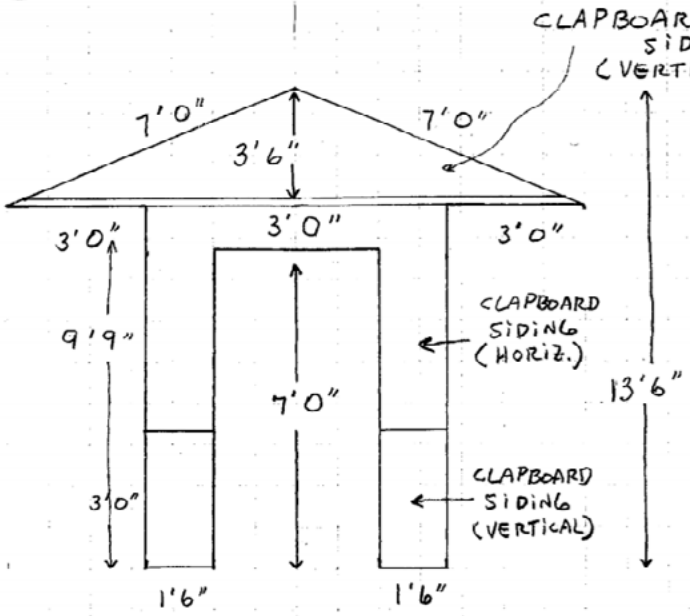


ROOF SUPPORT
(BUILD 2)

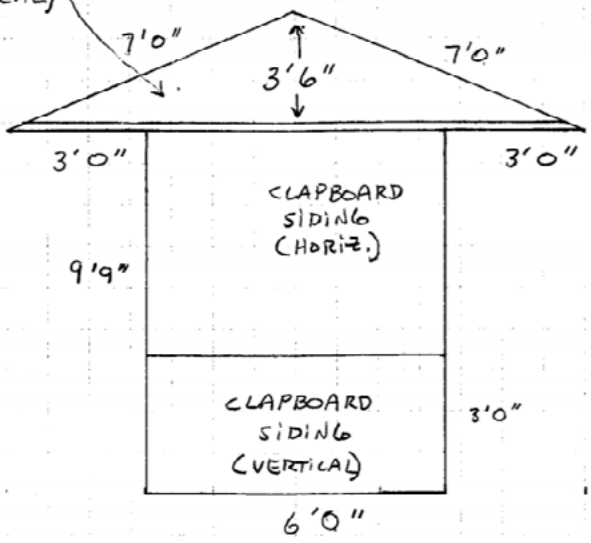


BUILDING SIDE
(BUILD 2)





BUILDING END
W/ DOOR
(BUILD 1)



BUILDING END
W/O DOOR
(BUILD 1)

Construction Tips – Wall sections

A Parts List can be found at the end of the article. Start by cutting out the two end walls (door side and the opposite side) from clapboard siding. I chose to use Northeastern Scale Lumber Company 1/32" clapboard siding, product # 132CLPB. Whatever material you choose, ensure that the clapboard is oriented vertically on the bottom 3' of the entire building. The area surrounding the door from the 3' height up to the 9' 9" height has the clapboard oriented horizontally. The opposite wall is constructed similarly. The two gables have vertical oriented clapboard. I used Elmer's Carpenter's Wood Glue to secure the clapboard pieces. Once the wall section for the door is glued, carefully cut out the opening for the door frame, and test it for proper fit.

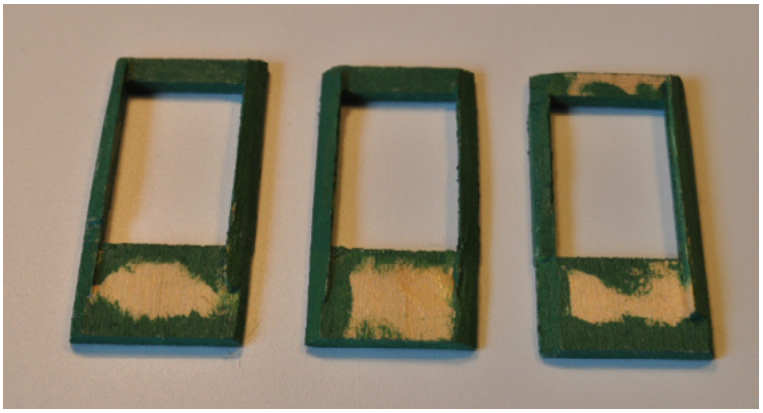
The four chamfered corner side wall sections are constructed next, again using clapboard siding. Looking at the prototype photos, you can see that there is horizontal oriented clapboard between the windowed wall sections. In my attempt to replicate this feature, I cut narrow pieces of clapboard and glued these between the top and bottom pieces. This proved to flimsy and when I tried to bevel the edges by sanding, several broke. I even glued flat toothpicks to the inside of these narrow areas to strengthen them. I was not able to get the edges to fit correctly and I was not pleased with their appearance.

So, I started over on these sections. To ease the task of cutting these out, I chose to make these from a single piece of vertically oriented clapboard. Use caution when cutting out the openings for the 6x6 double hung windows that get placed into these wall sections as there is only 6" of siding along the vertical edges of the window. Test the windows for proper fit.

The two long side walls are constructed next. As with the four corner wall sections, the long side walls are made with vertical oriented clapboard. And, the window openings for the 6x6 triple windows have thin 6" wide siding on the vertical edges, so take your time and cut carefully.

Note: I found that sanding the edges of the wall sections was far easier done before cutting out the door or window openings. I broke several of these and had to start over by making new wall sections.

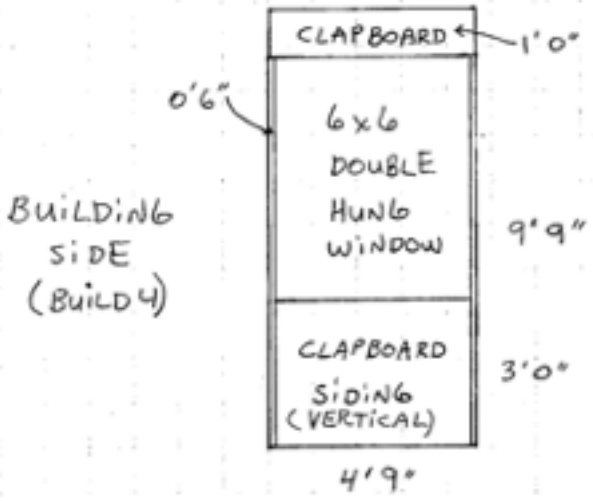
Now that the wall sections are cut out and the door frame and window openings are completed, I turned my focus on beveling the edges of the walls so they will mate properly when glued together. I pondered how to make the bevels for several days. Then I idea struck while in my garage

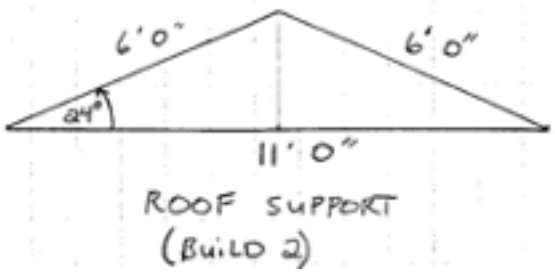


workshop. Using my compound miter saw, I cut two 1x4 boards. One was cut on a 20° bevel, while the other was cut on a 25° bevel. This was done because there are two different angles between wall sections, 130° and 140° (see sketch). Halving these angles and then subtracting from 90° resulted in the two needed cuts.

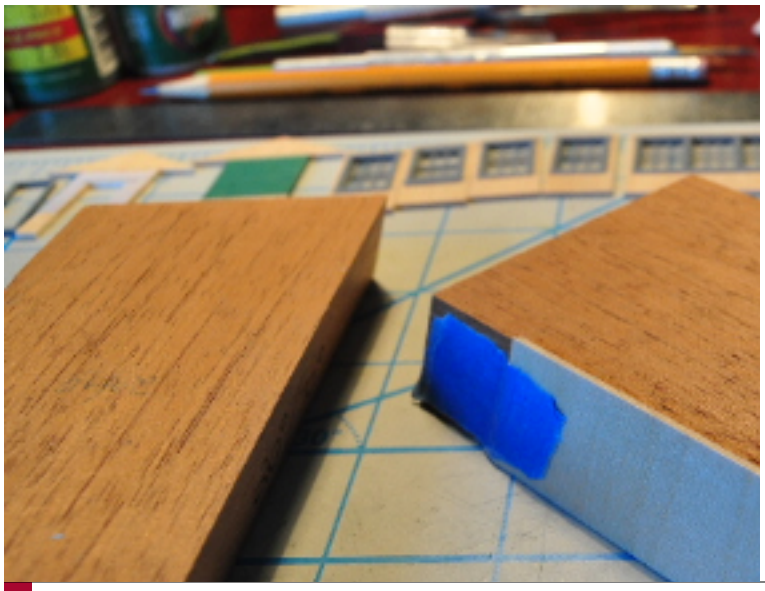
Placing the wall section requiring a bevel between the boards and clamping to hold the section in place, I trimmed the edge with a single-edged razor blade. Only light sanding was needed to finish the edges to achieve a perfect corner, and proper fit between to mating sections.

If I had to do it over again, I would bevel the wall section edges first, then cut out the door and window openings. I believe it would be easier working with whole pieces of material to trim the edges in the manner I chose. With the wall sections built, edges beveled and sanded, glue them together



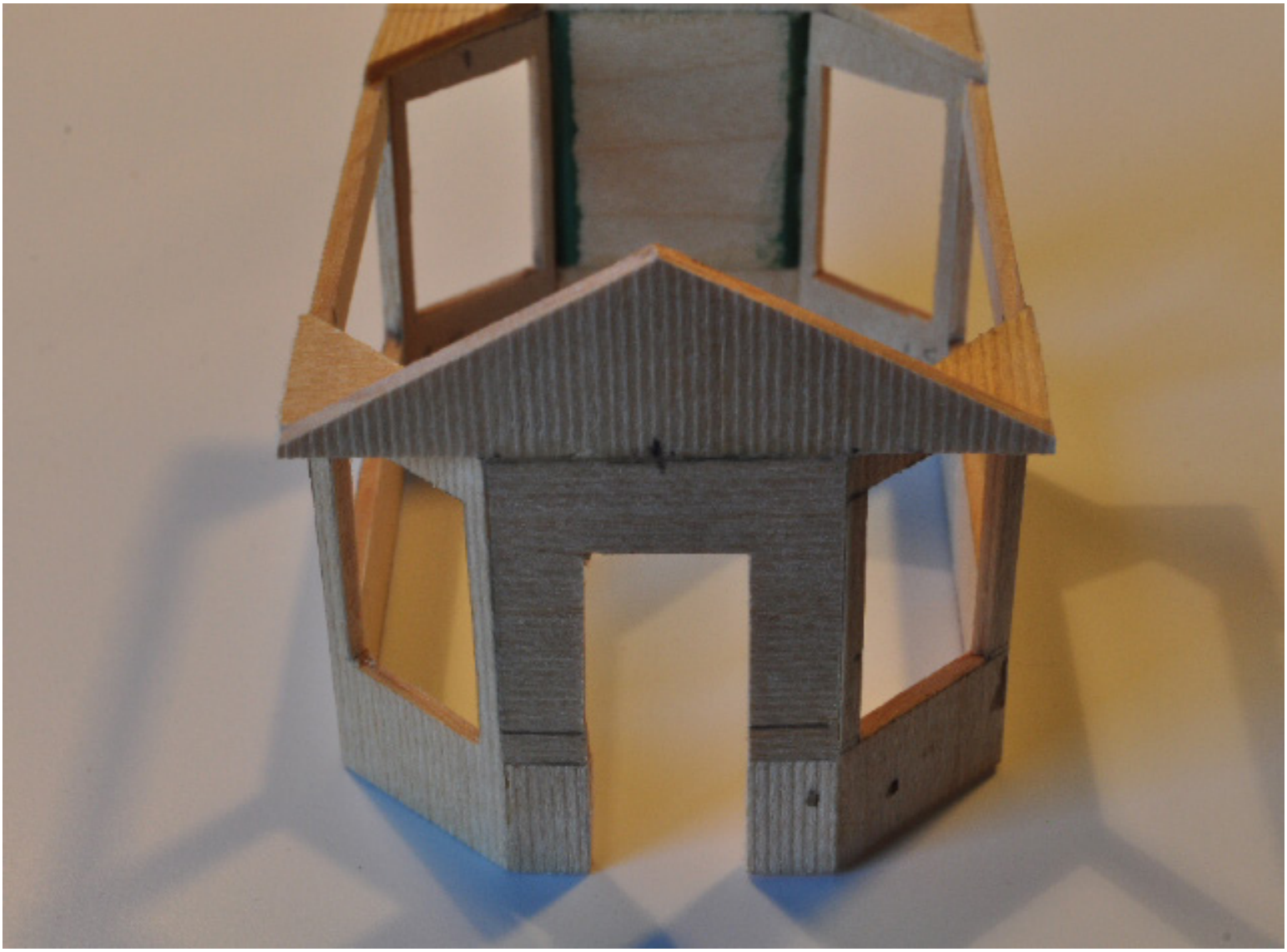


using wood glue. I placed wax paper over the sketch, then positioned the wall sections over their respective positions when gluing. Cut and install the four soffit corners from clapboard siding ensuring that the smooth side is facing down.



Construction Tips – Base and Roof

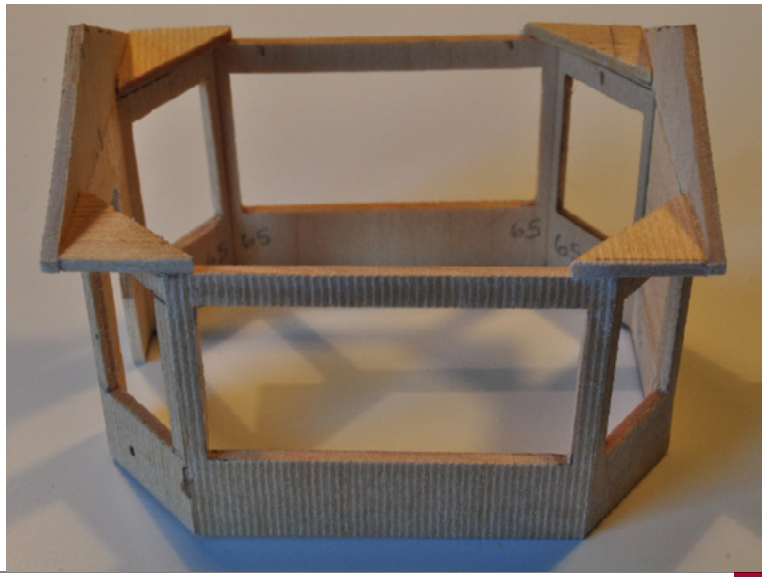
With the wall sections now glued, we can turn our attention to the base and the roof. The base is cut from a piece of 3/16" thick Elmer's Foam Board cut to match the octagonal shape of the floor, and just slightly oversize. As this product contains a paper layer on top and the bottom, I gently peeled off the bottom paper layer then sanded the foam to give an overall thickness of approx. 1/8". The edge of the foam was filled in with dry wall compound and sanded smooth. The base was then painted a concrete color. The roof is built up from several sizes of stryene. Begin by cutting out the two roof panels from #9040 (0.040") stryene sheet, 9' 0" by 20' 0". Carefully sand the mating edges on these to the correct angle. To strengthen the roof, we will use a pair of triangular roof supports. Cut these from 0.040" as well. Measure 6' in from the edge of the roof halves – this is where the roof supports are placed. With these parts cut, use stryene cement to glue them together. To make the roof easier to remove and replace, I placed alignment strips on the underside of the roof just inside the point where the gables meet the roof. These are cut from #142 0.040" x 0.040" square stryene, 7' long, and glued 1'

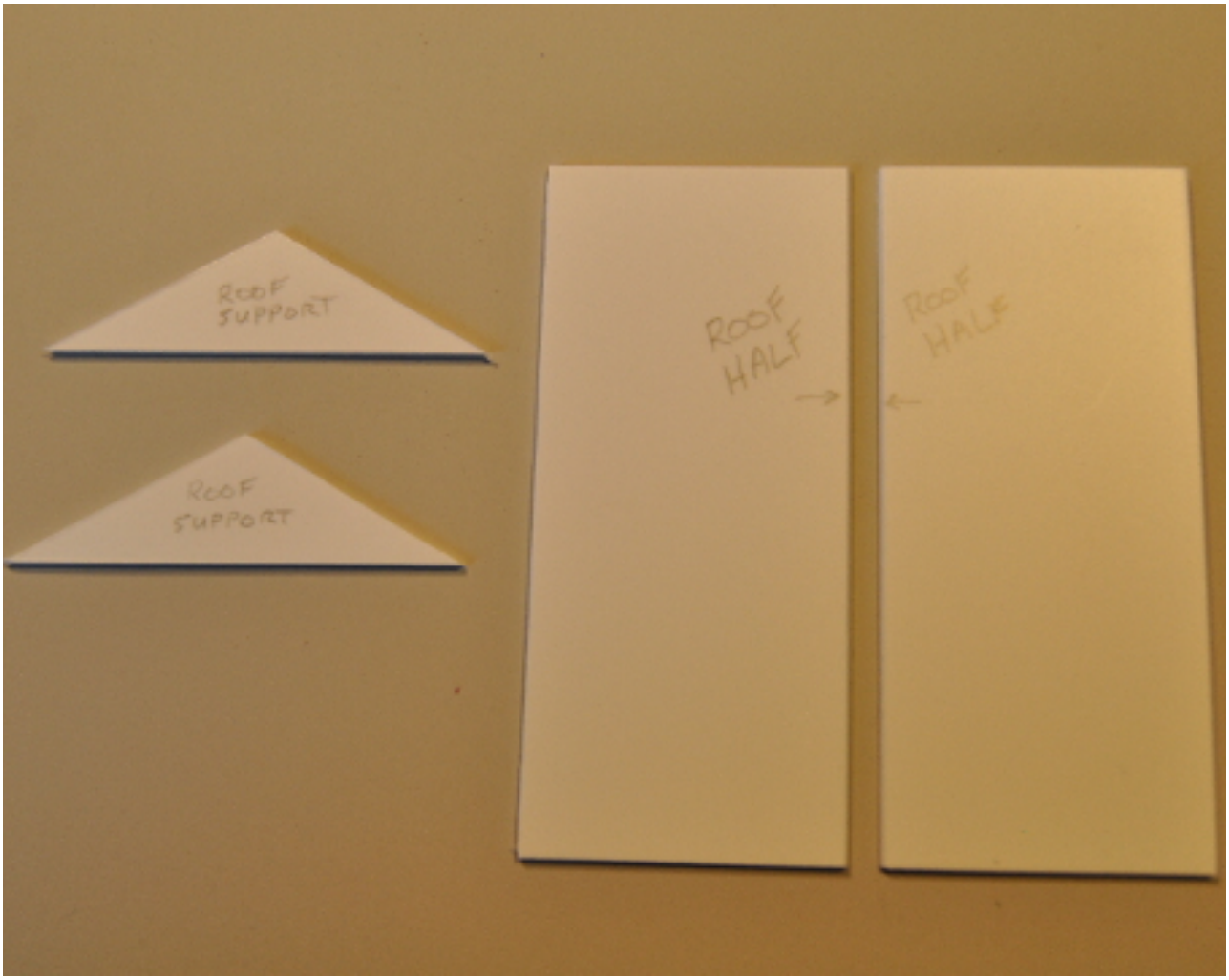


7" from the edge of the roof (see photo for placement).

Next, install the fascia. We will use #143 0.040" x 0.060" styrene for these six pieces. I cut and installed the four pieces that run on the gable ends first. This will make installing the two pieces on the long edge easier. Cut the ends to match the joint at the peak of the roof, and the bottom end vertically. To make installing the facia on the long edges easier, I glued #103 .010" x 0.060" strip stryene just inside of the roof edge to make the fascia hang down vertically.

Next, I cut 120 grit sandpaper into strips 12 scale inches wide, and glued them onto the roof with Elmer's White Glue starting at the bottom of the roof (at the drip line). Overlap these slightly as you lay the next strip down and proceed all the way to the peak of the roof. Repeat this for both roof halves. Then using the same 12 scale inch wide strips, cut ridge caps ¼" wide. Fold the ridge caps into a 45° angle, and starting at one edge, glue them down across the roof peak. As before, overlap these slightly until you reach the other roof edge. Using a hobby knife, I raised up some of the singles and added some pastel chalks for stains. Installing a smoke jack finished off the roof.

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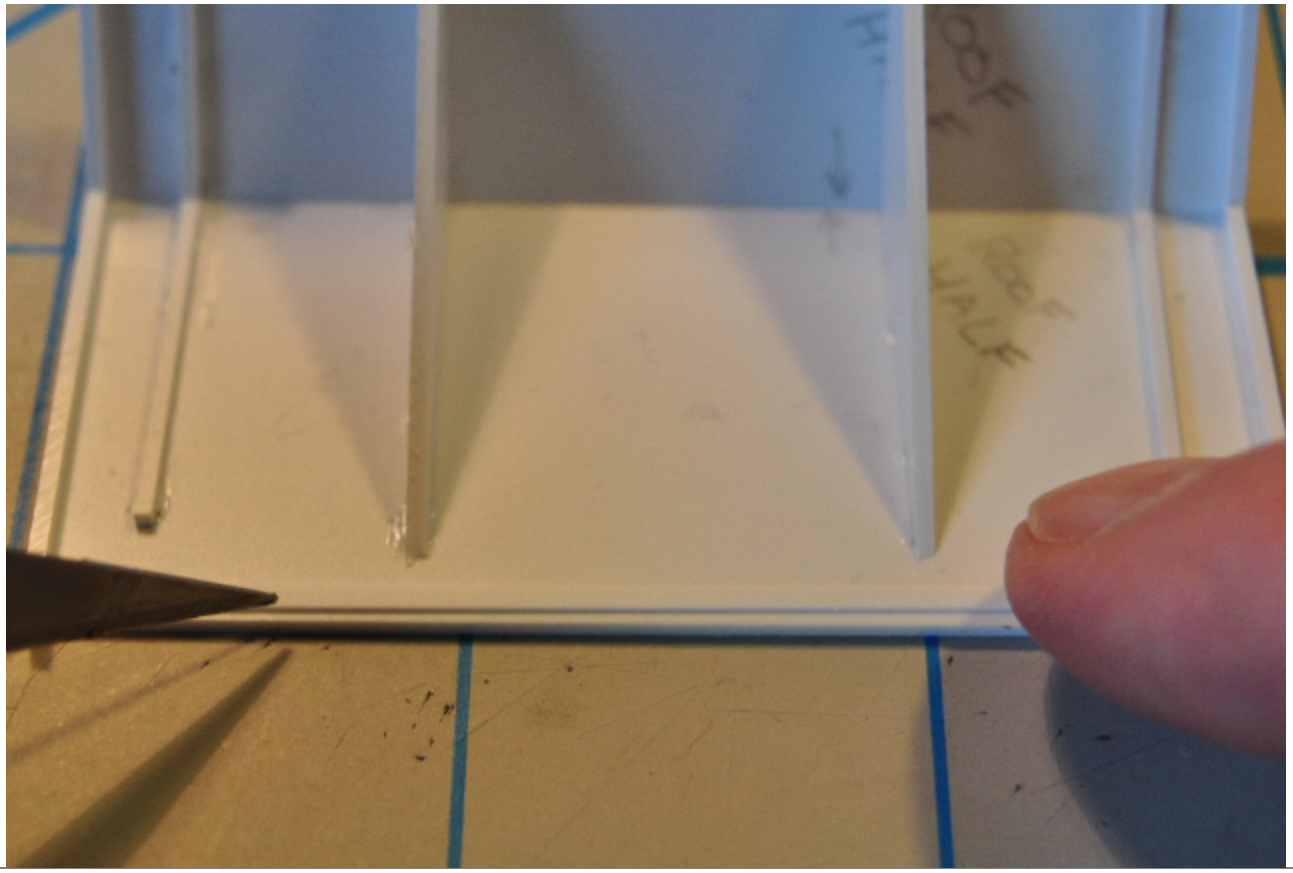

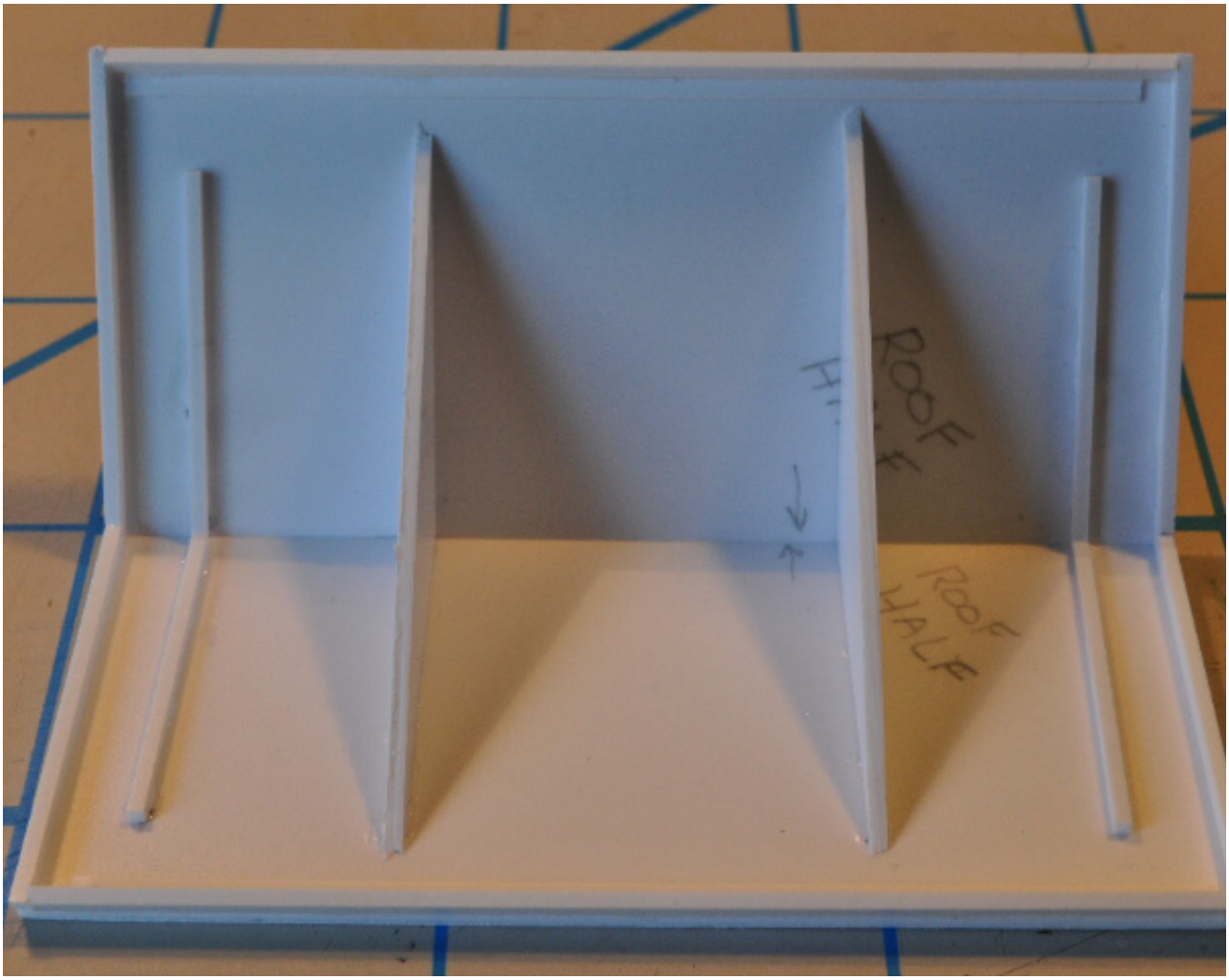
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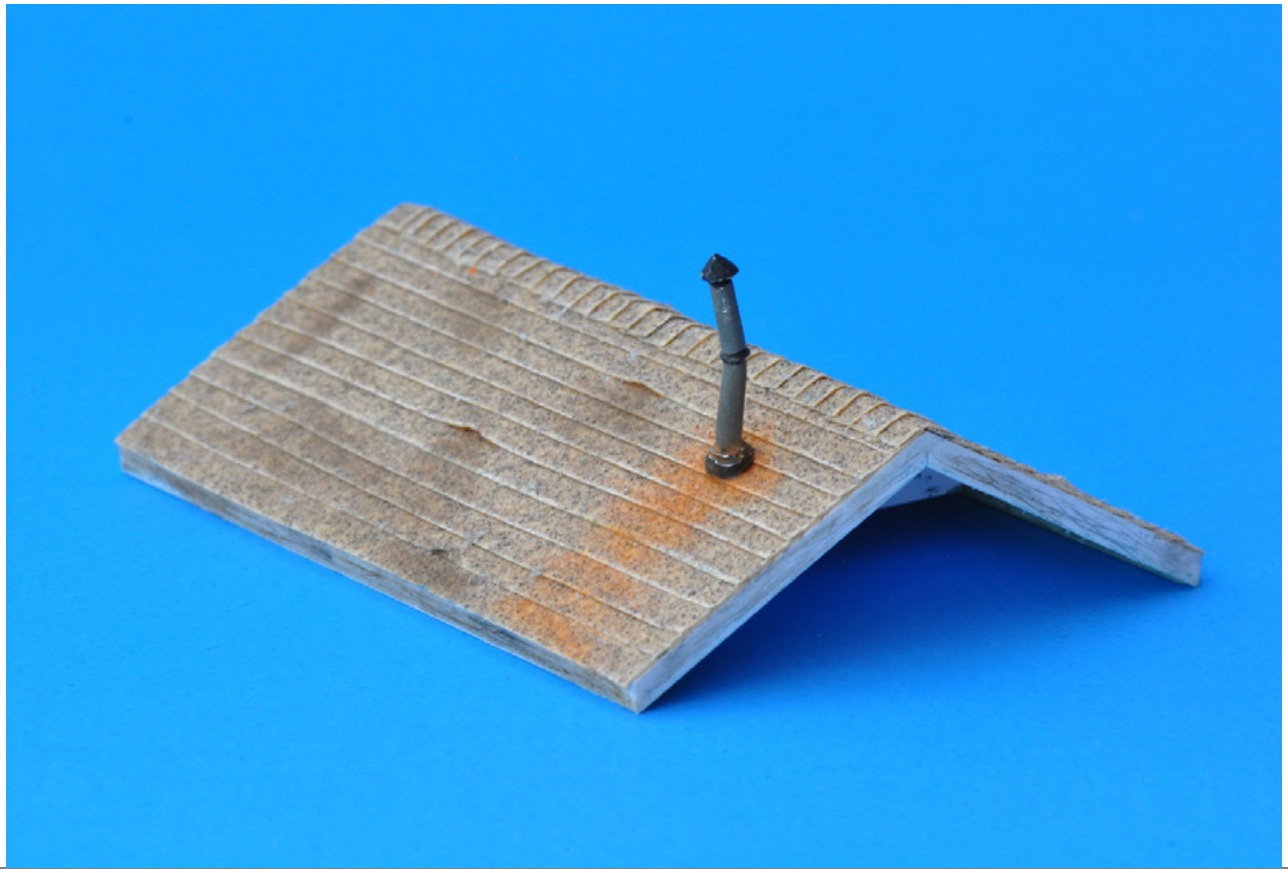
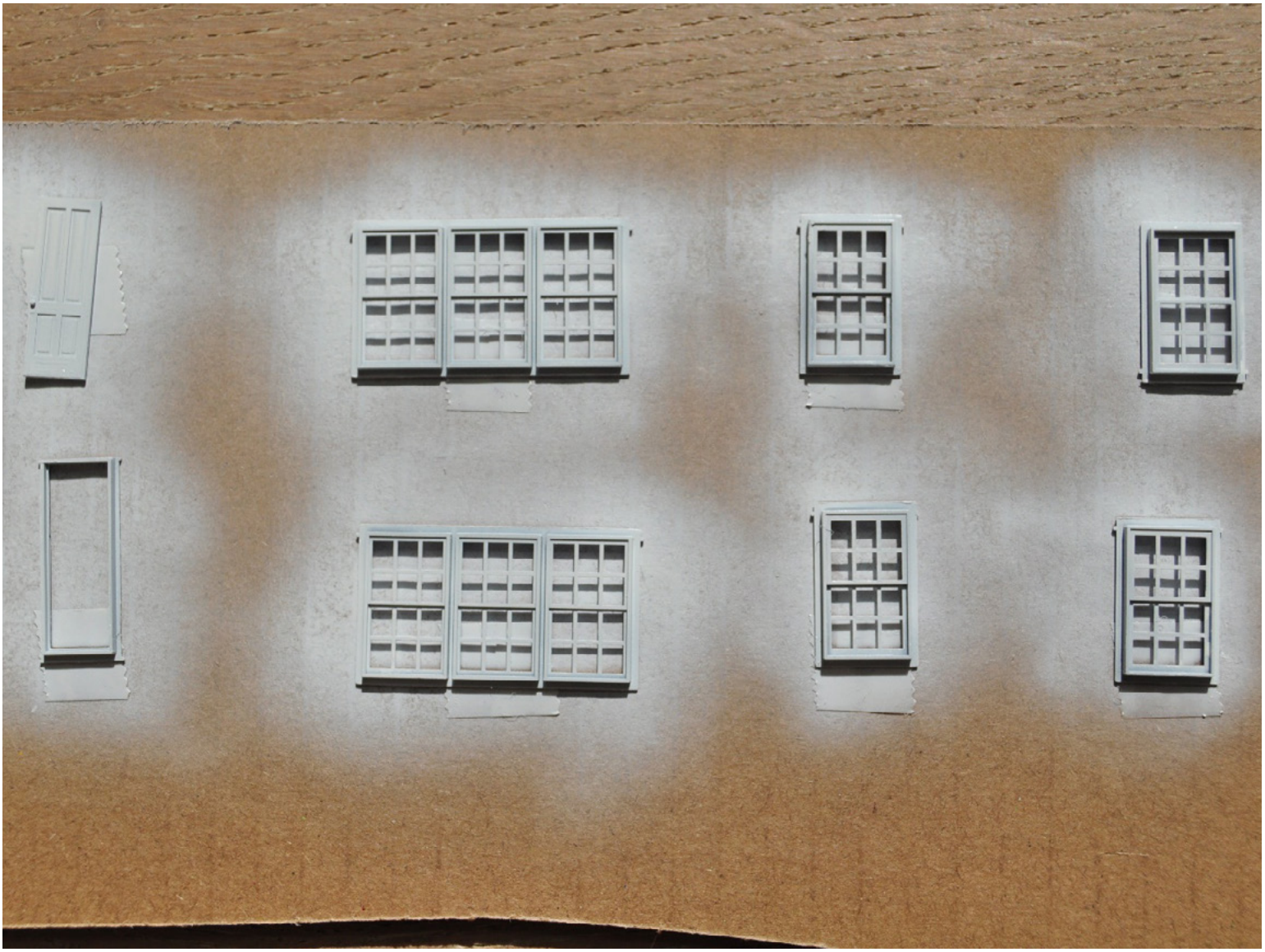




Construction Tips – Painting

I used Tru-Color brushable paint for the interior and exterior of the building, choosing Flat Roof Brown (TCP-823) for the interior, and Flat Light Green (TCP-810) for the exterior. The L&N used light green for base color on it structures with white trim until the late 50's or early 60's. The windows, door, and door frame were sprayed with Tru-Color sprayable White (TCP-005) thinned 2-to-1 with their thinner TCP-015 while mounted to cardboard with two-sided tape. Before mounting the windows and the door, I "broke" some of the window panes, busted a few of the window mullions, and added some aged effects.

Construction Tips – Interior Details

Using 0.020" styrene sheet, I cut out two counters to match the shape of the interior walls. Then using scale 2x4's, made bracing to run along the wall to provide support for the counters. More 2x4's were added as legs to support the counter along it outside edge. A seated figure and a pot belly stove give the interior additional detail. Finally, as the prototype structure was used 24/7 x 365, I added a grain of a wheat bulb and small battery for night time effect lighting.

Construction Tips – Finishing Touches and Details

Install the four lamps to the exterior of the scale house near the corners. Pastel chalks were used to add dirt and grime to the interior floor and all of the exterior. That about covers it for the scale house. In the next article, I will highlight the construction of the scale tracks seen on both sides of the house. ML

Parts List

Manufacturer	Part #	Description
Northeastern Scale Lumber	132CLPB	1/32" Clapboard
Evergreen Scale Models	9020	0.020" stryene sheet
"	9040	0.040" stryene sheet
"	142	0.040" x 0.040" strip
"	143	0.040" x 0.060" strip
"	103	0.010" x 0.060" strip
Tichy	8024	6/6 Double Hung Window
"	8161	6/6 Triple Unit Window
Grandt Line	5088	30" 4 Panel Door
Tichy	8027	Lamp Reflectors
Elmer's	950802T	Foam Board
Tru-Color Paint	TCP-810	Flat Light Green
"	TCP-823	Flat Roof Brown
"	TCP-005	White

3D MODELING FOR MODEL RAILROADING

by David Hager

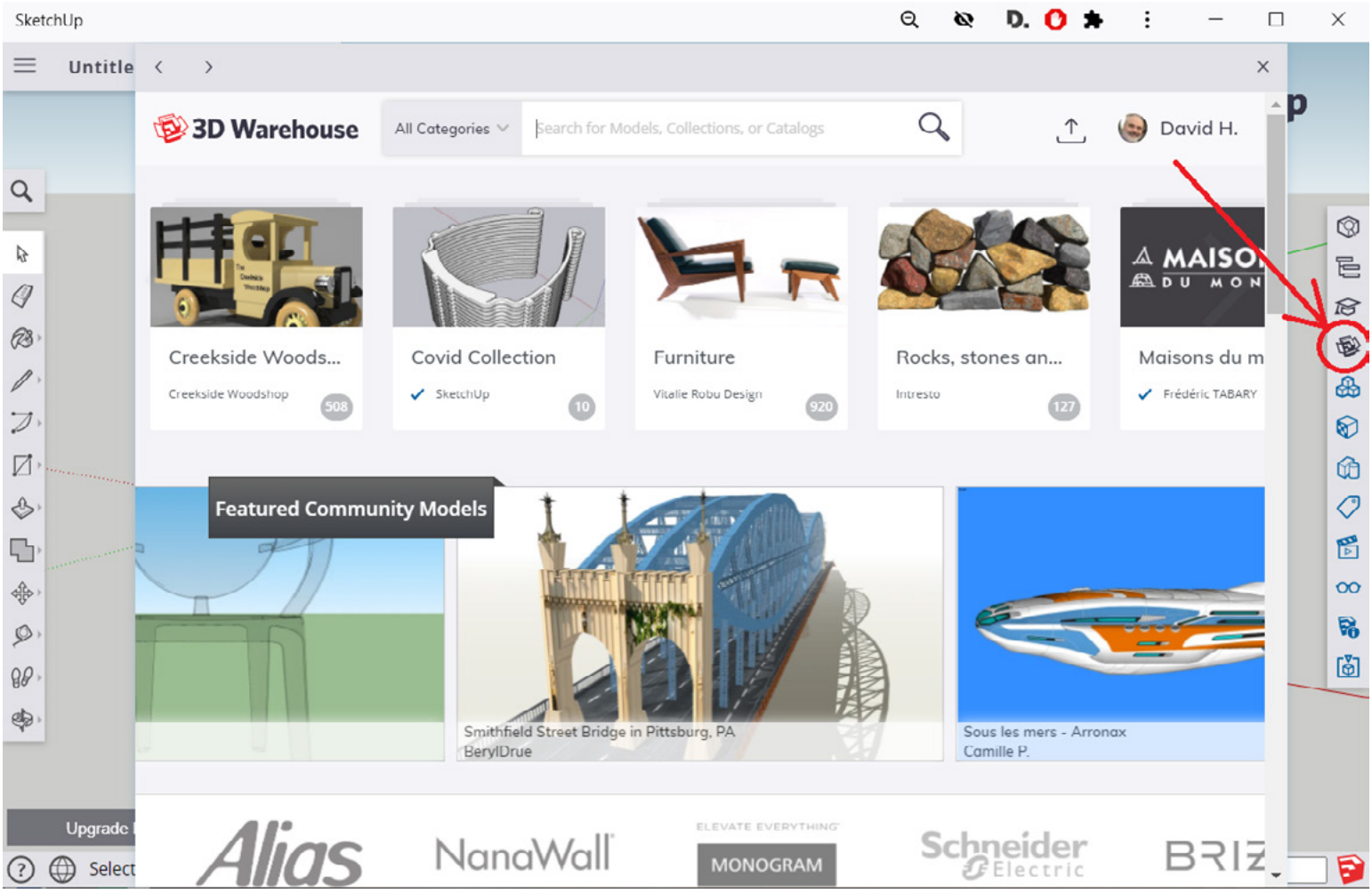


Figure 1: Where to find the 3D Warehouse

So you bought a 3D printer, went out to Thingiverse and all the other free 3D sources you could find, downloaded files and have been printing all kinds of stuff? Yet there were still more things you wanted for your model RR and so you may have gone to Tinkercad because it is just about the easiest way to get started drawing your own stuff to print (and maybe discovered its limitations by now). Whether you have or haven't gone this route, but want to print things you create, you might be looking at two free software packages to use to do your drawing: Fusion 360 or Google SketchUp.

I am an engineer and have used Autocad in the 80's, 90's & 2000's and started using Google SketchUp somewhere between 2000 and 2010 on and off. I started my 3D printing adventures with SketchUp because I knew it was free. Yes, I had to relearn things. I found this guy's video:

https://www.youtube.com/watch?v=UMH0Vk9TljU

and I was off to the races drawing stuff up. If you are still reading, you've probably heard of Shapeways and you can search YouTube with search terms "SketchUp" and "Shapeways" and find some other good videos. There are plenty of tutorials on YouTube.

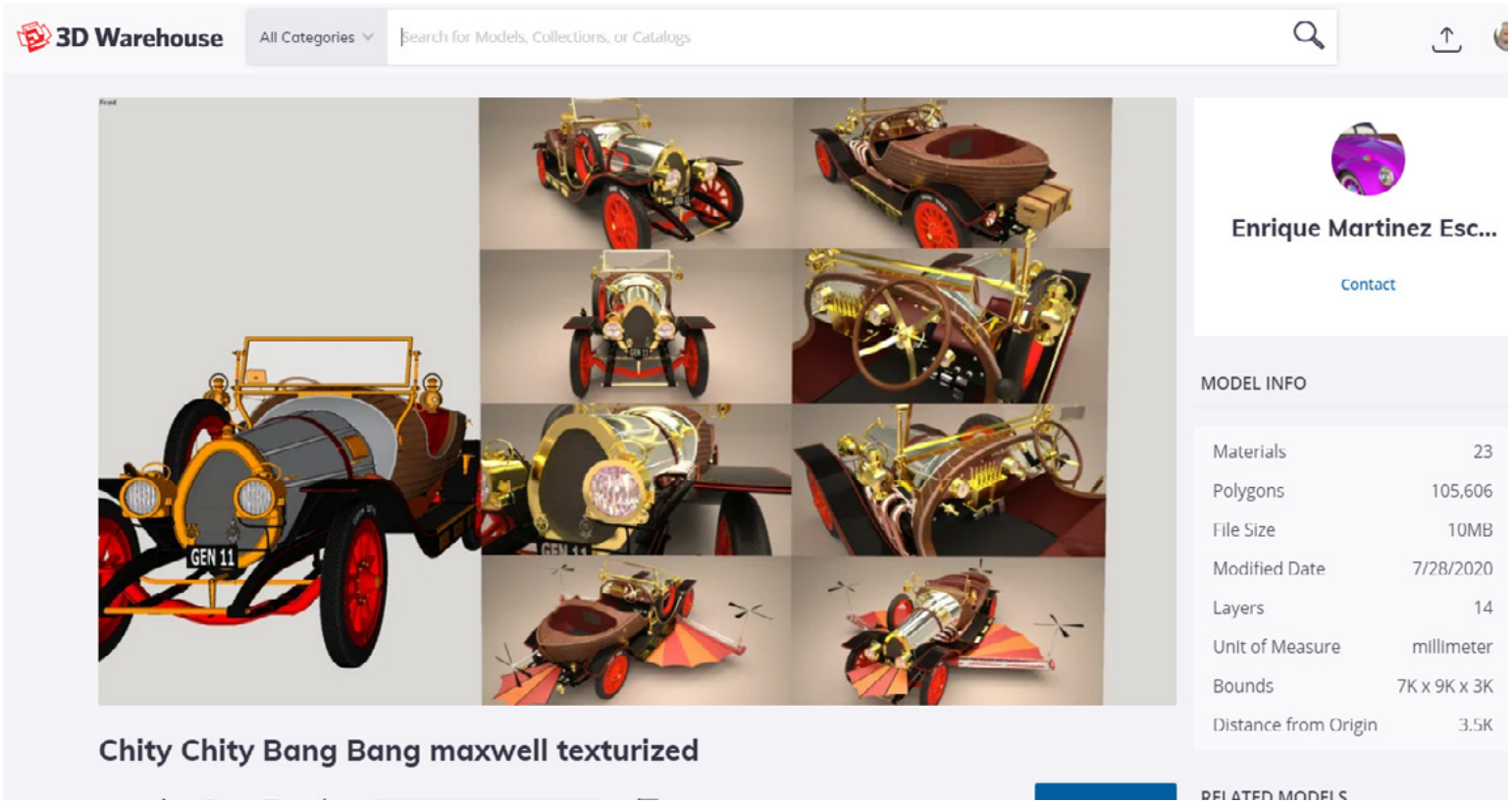


Figure 2: Chitty Chitty Bang Bang Car

Then I found out Autocad had Fusion 360 and you could download it and use it for free for personal use. I did that. As I poked around in it, I started remembering that there always seemed to be more to learn about autocad and unless I used it alot, I tended to forget how to do things the easy way. Both are great, free software. I think the learning curve in Sketchup is not as steep as Fusion 360. Just my 2 cents.

I have not spent enough time with Fusion 360 to discuss it here, so I will discuss 3D drawing for printing with SketchUp.

The first thing I want to point out in SketchUp is the free library of drawings already created. Google calls this the 3D Warehouse and it can be found by clicking the Icon marked in Figure 1. The thing you wanted most that you didn't find elsewhere might be in the 3D warehouse. The one caution is that not all of those things in there are made for 3D printing and may need some modification to work on a printer.

As an example and if your model railroad is based on a 1968 musical, the item in Figure 2 is available for download. "Oh you pretty Chitty Bang Bang, Chitty Chitty Bang Bang, we love you." Sing along if you want.

Soon after learning how to draw cubes for buildings and cut out rectangular holes for doors and windows, it is likely learning how to dress up those items with molding will be the next task. It is easier than you might think. Introducing the "Push/Pull" tool shown in figure 3. To make molding, first draw the cross-section (or end view) of the molding. I have indicated the different line segments with different colors (see figure 4).

After determining the combination of straight and curved lines that make up the shape, select the Push/Pull tool and drag the 2D cross section to the length needed for the door, window or top of the building.

This same tool is useful for making clapboard, stretching a rectangular 2D wall into a 3D rectangular prism or any other 2D geometry (like a toothed gear) that just needs a linear stretch to make it a 3D object.

Figure 3: Push Pull tool

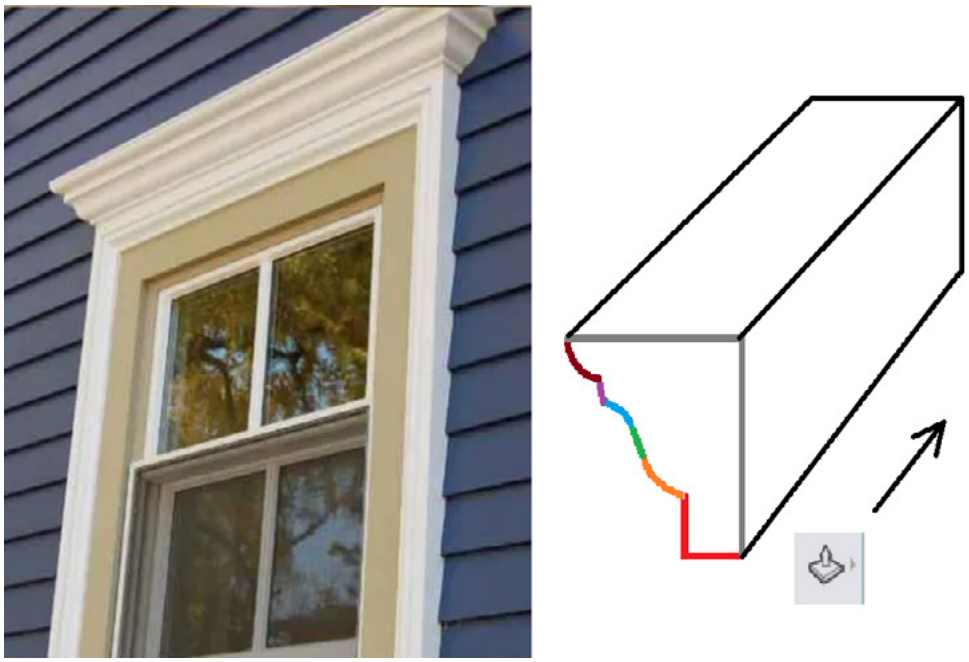
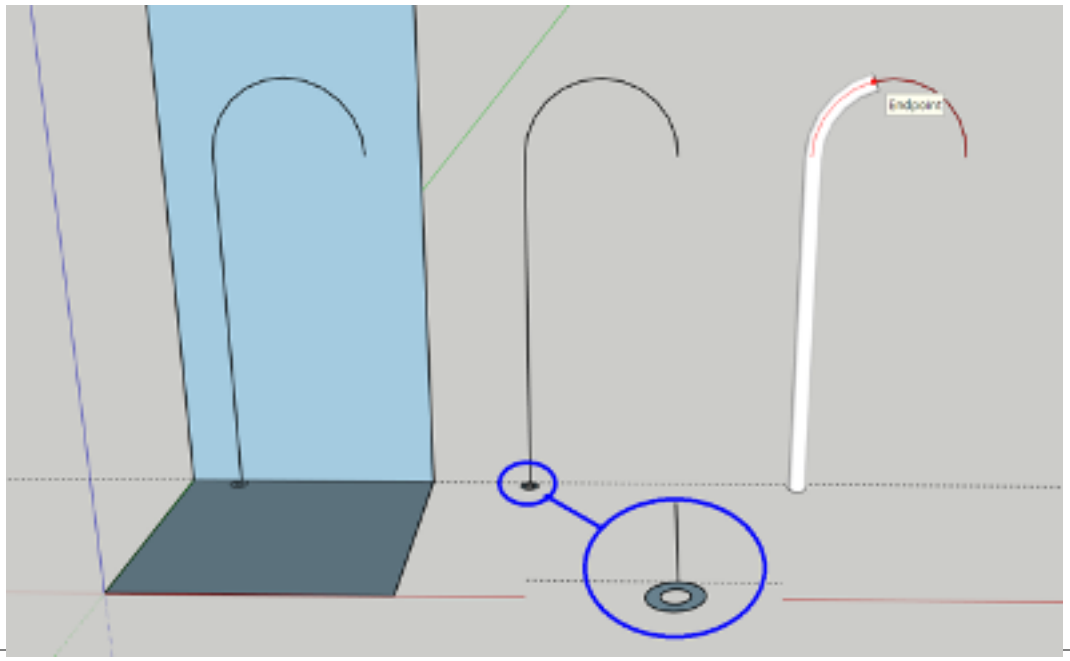


Figure 4: Drawing molding

One other tool that is useful to learn at this point is the "Follow Me" tool. Where to find it is in figure 5. There are many uses for this tool. Need a hollow Street light pole? See figure 6

Figure 5: Follow Me tool

Figure 6: Follow Me tool to make a lamp post



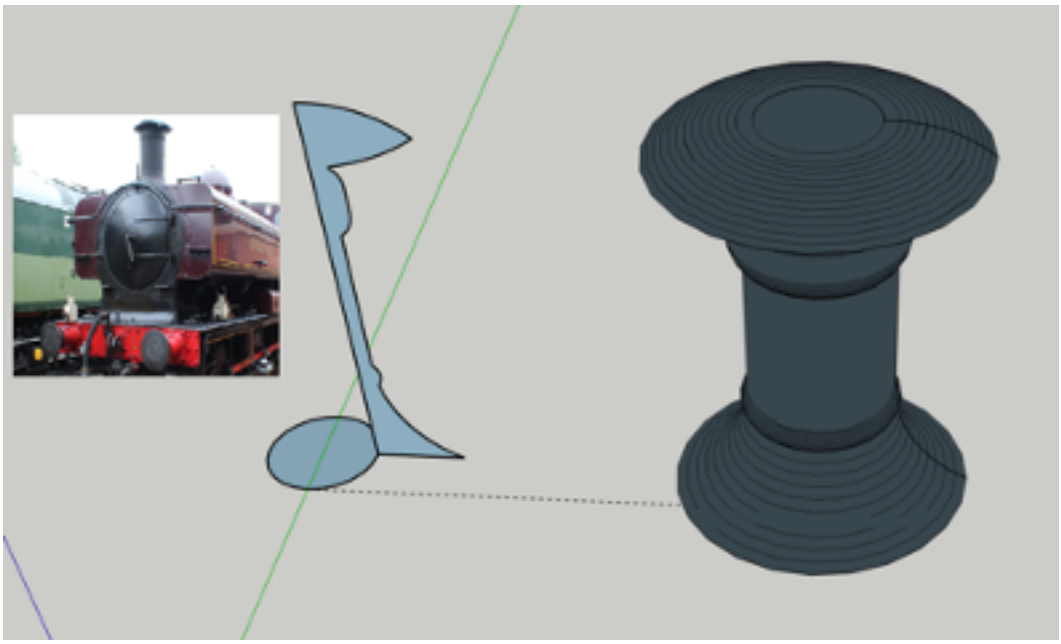
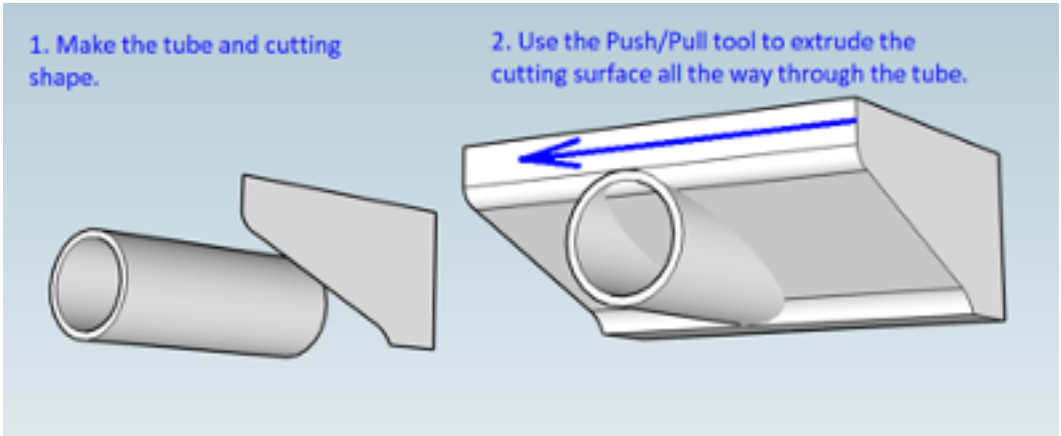
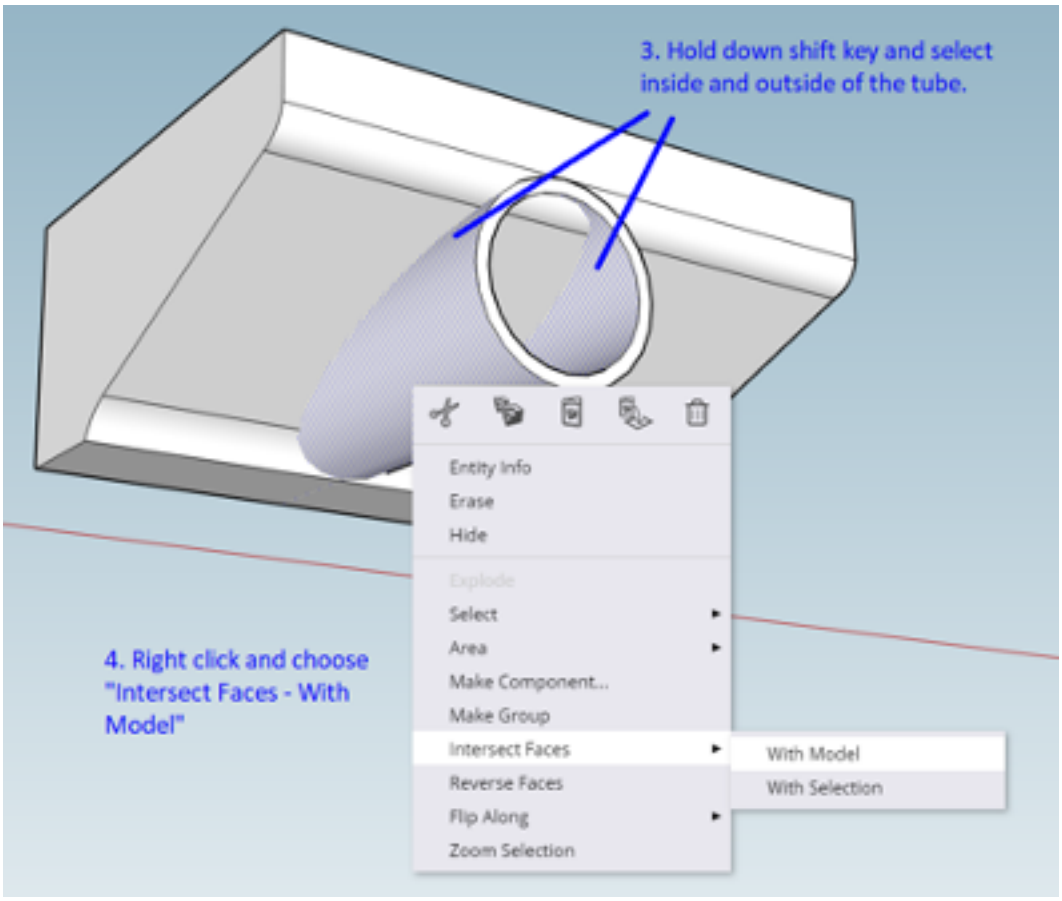
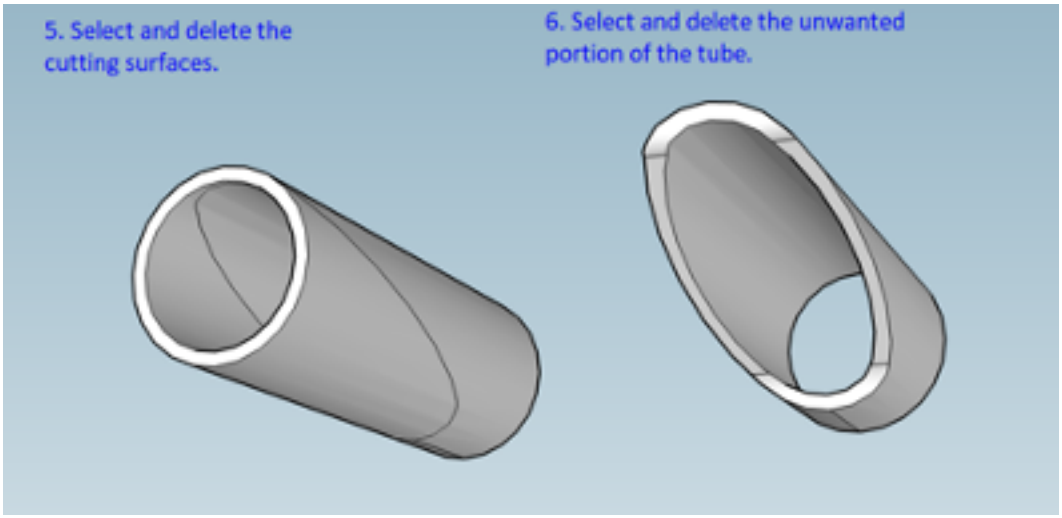


Figure 7: Make your own smokestack

Figure 8: Making a slicing surface







I will conclude with this - sometimes it is easiest to draw a basic shape and "cut off" what is not needed. Take a look at a RR crossing signal. What is that sun shield over the light bulbs? It is a tube with part of it cut away (figures 8 - 10).

Sometimes it just feels good to make your own. What will you make today?

Contact me here zlittled5@gmail.com for questions and send us some images of what you have printed. If there is enough interest, shall we do this every issue? Would you like to share your tips and tricks? Let me know! ML

By Jim Lemmond
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LSR Youth Award 2021

Tulsa Convention
June 17 – 20, 2021

At the present time, plans for the next LSR Convention are being developed to present a combined convention with the Mid-Continent Region and the Lone Star Region. With this new format and the coronavirus plans for the awarding the LSR Youth Awards must be changed. Outlined below are the tentative plans for 2021.

Youth Award Changes for 2021:

- Nominated youth will receive their award in their home divisions.
- No youth awards will be presented at the convention in 2021.
- The LSR Youth Awards will be announced at the convention Banquet.
- It is hoped that the LSR will be able to resume its usual award format in 2022.
- Please see the notice in this *Marker Lamp* about 2021 Youth Award nominations and due dates.

Director Reports

Cowcatcher Division 1

by Mike Mackey, MMR
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cowcatcherdivision.com

Greetings from everyone in Division 1! I hope that everyone is staying safe and healthy.

With an eye on caution, Division 1 is going to hold our annual Christmas Party on December 12, 2020. Special precautions are being put in place to provide an added layer of health and safety. If you'd like to attend please get in touch with me via email at director@cowcatcherdivision.org and I'll give you the details. The event is open to any and every one and their families.

In the spirit of the season, Division 1 is sponsoring food for needy families through the Salvation Army. We started this program last year and plan on making this an annual way to give back to the community. A gift of $100.00 feeds several families this season. Last year we donated $200.00 and plan to do the same this year.

If things progress as planned, we will FINALLY begin our flat car Scratchbuilding clinic in January as we resume face to face meetings. This clinic was originally scheduled to begin in January of last year, however, due to vendors not supplying part on time and COVID-19, we have had to postpone the commencement until January 2021. We currently have 36 members, in 3 different scales, who have paid their registration fee to attend. This fee covered the cost of materials.

Our monthly meetings via Zoom have continued to provide us a way to stay in touch and keep building our division. We have averaged about 46 attendees per month since April. Personally, I think that is OUTSTANDING! We will continue to host these meetings moving forward so that anyone cn attend or watch the video online on our YouTube channel. We invite you to subscribe to our YouTube channel and watch past meetings and clinics any time you'd like. Just visit www.cowcatcherdivision.org and click on the YouTube link on the top banner.

Until next time,… Stay Inside, Stay Safe and Stay Healthy!

Bayou Division 2

by Ken Mason
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504-722-6610

Once again it is time for a report with not a whole lot to report on. Covid-19 is still taking its toll and postponing or cancelling model railroad events around the country and the world.

The semi-annual Ponchatoula Train show hosted by the Louisiana Train Collectors Association had to cancel the November 7th show, once again due to Civid-19. The next scheduled date for this show is March 6, 2021. We hope that restrictions will be lifted enough to have this show back next year.

Here at my club, the Crescent City Model Railroad Club in Metairie, LA, we have not been able to have operating sessions. We have however been getting together again on Friday nights as in the past, with just a lower turnout of regular attendees. Updates, modifications and new projects continue to get worked on by members at different times of the day and weekend hours. We are also happy to announce that our Crescent Lines Accurail covered hopper is now SOLD OUT!

I have heard that the Mid-South Club in Baton Rouge has attempted to have operating sessions only to be interrupted by tropical storms or hurricanes that continue to enter our area. They are also making improvements and modifications to their layout as well.

The Greater Baton Rouge Club in Jackson Louisiana are in the same boat and have been posting virtual layout tours on their Facebook page. Some very nice news to come out of the Greater Baton Rouge Club was the donation of two handcrafted wooden rocking chairs that were made by member Blane DeRoche. They wee donated by the family of longtime member Tom Mills who passed a way a couple of years ago. Tom is still missed in that club and also by the CCM-RC were Tom was also a member.

The Lake Charles Area Modelers Club location at the children's museum had to vacate the museum property earlier than expected after Hurricane Laura did extensive damage to the museum roof which caused water leakage into the museum and onto the layout. We are all sad to see that layout go away and hope that the Lake Charles area club can find a new permanent home and rebuild soon.

On a personal note, I had to have my appendix removed the last week of July. I had been having some pain in my right side for a while before that and could not figure out what it was until one Sunday working at the club with another member when the pain got really bad. A trip the ER and a CAT scan revealed an inflamed appendix. It was removed the next day with no complications, just the usual after surgery pain and discomfort.

I have also been participating in weekly Zoom meetings hosted by Kevin Ruble of Caboose Hobbies in Lakewood, Colorado and co-hosted by Michele Kempema of the Colorado Model Railroad Museum. I have made some great new friends and contacts in the hobby and Kevin even invited me to be a guest on his Wednesday night OS Check-In Show on Wednesday August 19.

If anyone has any interest in seeing the show, they are posted on the Caboose Hobbies Facebook page. I am honored to be among some famous names in the hobby to be interviewed on the show, like Tony Koester, Mike Budde, John Abatecola and Family Ties actor and model railroader Michael Gross. If you have time on a Wednesday night, look for the Zoom meeting link on the Caboose Hobbies Facebook page or just watch the live feed on Facebook. There is also a Friday night Zoom get tother called happy hour where we share what we have been working on and just general BS about the hobby or whatever topic comes up.

That's it for this time, I truly hope that Division 2 can get some kind of event planned and executed in the near future to have a bit more to report for next time.

North East Texas Division 3

by Donna Orr
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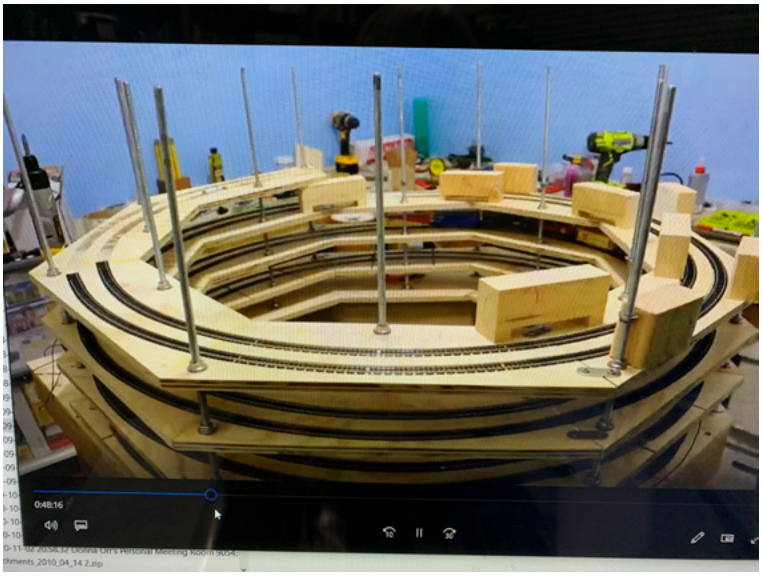
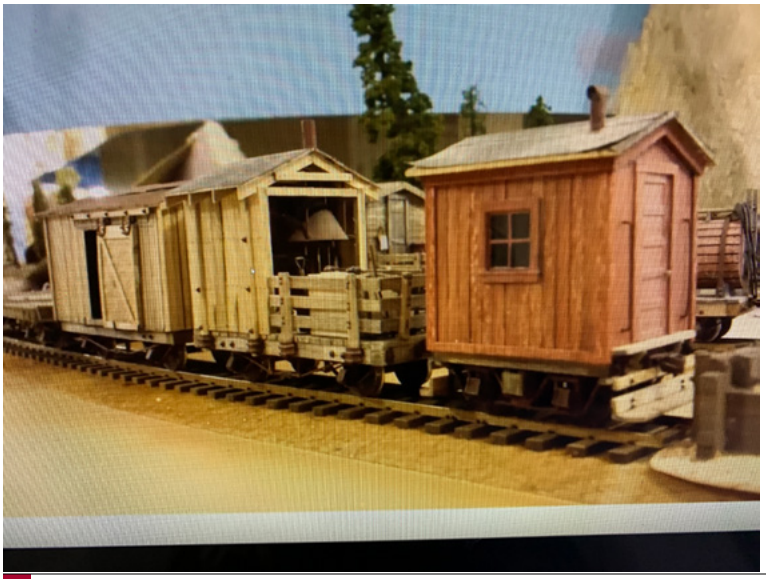
In August we continued our virtual meetings and we had a clinic on Arduino as a speedometer. We learned how the Arduino works, what customizations are needed and wiring. If you have any questions, Division 3's Thomas Stephens was our presenter.

September we moved on to two clinics: Neil Dronet showed us how he constructed his n-scale helix base with the focus on the woodworking/construction side of things.



Then Duane Richardson will be giving us a clinic on "More than just a flat car". He showed how to add things to a flat car to create a group of small work train cars.



And then came October, finally we were outside and had a swap meet. The following are some pictures. All had a great time. Of course, masks and social distancing were part of the event.

As a side note, I finally started scratch building: Here are some pictures of my trestle bridge:

Looking forward to more Virtual meetings (not) for now and most importantly the HOLIDAYS!!!! Have a wonderful Thanksgiving and MERRY CHRISTMAS and Happy New year. Here's to a better 2021. (wow, did you ever imagine 2021, seems like we are really into the future.)

Division 6

by Don Winn
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Another South Texas Railroad Social was held in September via Zoom. John Lowrance presented a thought-provoking clinic on railfanning --- he says: don't just take pictures of locomotives, turn 180 degrees and take pictures of the wonderfully unique structures along the rail line. They won't be there forever, and they won't be preserved in a museum.

Mike Barrett shared his tips for keeping track of which way those complicated double-slip and 3-way turnouts are pointed. Patrick Phelan provided a virtual railfanning experience of what is moving out there on the rails in south Texas. In addition to the regular events, Frolin and Tom have been hosting less formal events named "Shop Talk" as a way to share what everyone is doing at home in this time of distancing.

If you would like to attend future events, visit southtexasrr.com to see what's happening or send an email to info@SouthTexasRR.com to get on the distribution list.
The SAMRA club (San Antonio Model Railroad Association) is open now on a limited basis. Work sessions are proceeding and some ops sessions are being held. Masks are required and efforts are made to keep distancing.

I chatted Dave Cenova, the president of the Texas Transportation Museum. They just concluded their annual Halloween event. With some modifications to accommodate Covid, they had a fun and success event.

Work continues on getting their #1 steam locomotive ready to run in a few weeks' time. Distancing is less of a problem when working on a 1:1 layout! AMRE members are still working on their layouts, and the big change is the SanTrax club getting moved into the museum as well.

Plans are still progressing for our regional convention in Tulsa next June 19-20, and the national convention in Santa Clara in July 4-11 (look for more details elsewhere in The Marker Lamp). Remember to put those on your calendars. I hope to see you there!

Right now I'm finishing up an RPO for my Cars AP, and will be starting a scratchbuild of a depot for my structures AP. If you have any questions about how to get going on the road to MMR, or would like some of your work judged, please let me know. It's a great way to stay busy while we're spending more time at home.

As always, if there is anything we can do to help you in your modeling, please don't hesitate to contact me.

Stay safe out there.

Nominations

By Pete Leach, MMR
pleachtx55@gmail.com

Elections for 2020 are behind us. Thanks to everyone who ran for office AND who voted! We need more folks willing to run and hold office. We'll work on low voter turnout later. We have the following positions up for election in 2021. If you are an incumbent and intend to run for reelection, great.

If you don't want to run again, we appreciate your service! Either way, please let me know.

President – (Chuck Lind has reached his term limit)
Treasurer
Division 1 Director
Division 3 Director
Division 5 Director
Division 7 Director

I would ask the above Division Presidents and Directors to start canvassing their respective divisions for folks interested in running for office. The latest Nomination form is available on the LSR website.

https://lonestarregion.com/sites/default/files/documents/constitution/lsr_nominee_information.pdf

Note that nominees must be 21 years of age to hold office. Anyone interested in running or have questions, please contact me at pleachtx55@gmail.com.

At-Large

By Pete Leach, MMR
pleachtx55@gmail.com

Figure 1 - Loco No 3 heads for the diamond in Wiscasset with a couple of boxcars. The loco was a major kit bash completed over the summer. It includes a scratch-built boiler and cab.

It has been a busy end of Summer and start of Fall. I have continued to work with other Maine Two-Foot modelers around the world to arrange Virtual Layout Tours using the on-line meeting platforms, such as ZOOM. We have formed a core group and conducted 5 tours, including 2 on my own layout. In addition to the tours, we keep some time at the end of each call for conversation. This has been great fun sharing experiences with likeminded modelers who would otherwise likely not meet in person. We plan to continue with an every-other-month schedule.

In September, I participated in 2 NMRAx events. The first was Ask the MMR®. Along with Chuck Lind and two other MMR's, questions were passed through the moderator, Gordy Robinson from Scotland. The questions were mostly about the Achievement Program, NMRA rules, and modeling philosophy. It was a great honor and experience to participate in this event.

The second NMRAx event was a Virtual Layout Tour of my railroad. The attendees could direct questions to me via the moderator, Speed Mueller. I walked around the layout giving commentary on the various locations and providing details on techniques used in the construction. This was harder than the tours I've conducted before because there wasn't same live audience feedback. But it IS a great way to share the experiences of building a layout to a wide audience. Both events were recorded and posted on the NMRA Facebook and YouTube sites.

I continue to support the local San Jac Model Railroad club by writing monthly articles. Having this monthly deadline does keep me in the layout room! I plan to continue as

Figure 2 - Boxcar 312 is a "raised roof" car that was scratch built based on historical photos and published research. The car received patches along

long as I have something to write about and readers who put up with me!

I did complete two significant modeling projects the summer. The first was a major kitbash of a Bachmann On30 Forney model. I converted it from a Baldwin 28-ton 2-4-4 to a Portland 18-ton 0-4-4. The project included several scratch-built assemblies and shortening the frame while keeping the good running mechanism intact. An article on the build has been submitted to White River Productions for their 2021 On30 Annual.

The second project was a scratch building effort of a specific boxcar from Wiscasset, Waterville & Farmington Railway. This car was built in 1895 and still exists today at the Boothbay (Maine) Railway Museum. Boxcar 312 was fun to build and learn about the history of this car. An article on the build has been submitted to the Narrow Gauge & Short Line Gazette for publication some time in 2021.

Finally, speaking of the GAZETTE, an article on my home layout was published in the Nov-Dec 2020 issue. This was my 4th article published by Bob Brown. He visited my layout during the 2015 Narrow Gauge Convention when it was mostly plywood and Homasote. He has continued to encourage me to complete the layout and to write about. Many folks may not know Bob was MMR # 215. It has been a great experience working with and getting to know him.

I am looking forward to continued meetings in the months to come, even if they are virtual! And I am looking forward to getting back to "normal" in time for the Tulsa Union joint convention with Mid-Continent Div in June 2021!

Stay safe and keep modeling!

No reports submitted

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Division 7
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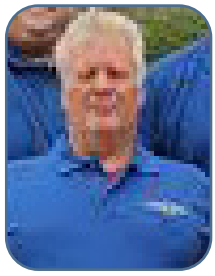
318.798.7718

Texas Gulf Division 8
by Phil Stewart
pstewart1225@yahoo.com



CenTex Division 4
by Bob Thiele
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Convention

By Marc LaChey
bu1977@att.net

We continue to make progress toward a joint convention with the Midcontinent Region and the Lone Star Region. Tentative dates are June 16-19, 2021 in Tulsa, Oklahoma.

Ken Ehlers from MCoR's Indian Nation Division (formerly a member of LSR's Texas Gulf Division) and Marc LaChey of the LSR Trinity River Division have volunteered to serve as Co-Chairmen for the convention. Chris Atkins, LSR Cowcatcher Division will serve as Registrar. Chuck Lind, LSR President, will arrange for Clinics. Ray Byer, LSR Texas Gulf Division along with Jeff Palmer and Duane Richardson of the Trinity River Division will be involved with the contest room.

We anticipate that members of the Midcontinent region will be serving in a number of other roles in support of the joint convention. As this will be the first joint convention for the LSR and MCoR, Ken and Marc will be working on the sharing of various logistical and work assignments for the two regions.

While Ken and Marc develop the convention format, we expect the convention to feature camaraderie, clinics, a contest room, layout tours and opportunities to operate. Ken and Chuck have already had preliminary conversations and are planning as many as twenty (20) clinic for the convention. Ken has started conversations with a number of layout owners in Tulsa regarding both operating sessions and layout tours.

As of this writing, Ken and Marc are negotiating with a hotel venue in Tulsa to host the convention. More specifics will be shared once the hotel proposal has been finalized and presented to the boards of the LSR and MCoR for approval.

For now, we encourage everyone to pencil in June 16-19, 2021 on your calendar.

Treasurer Report

by Speed Muller, Treasurer
lsrtreasurer@huntatrophy.com
469-345-0022

Well, with winter approaching, we are happy to report that the NMRA head office sent us some rebate money, else we had nothing to report.Please remember that we still have at least 6 paid memberships with the magazine in the Delattre Fund offer to modelers from the defence forces - current or retired!

Keep an eye on the NMRA calendar https://nmra.org/calendar, and you'll see NMRAx will be back next year.

Second Quarter, 2020/2021:

Beginning Balances (2020/08/01)	
Tulsa Advance	$ 1,000.00
LSR Unrestricted Accounts	$41,486.93
Beginning Total LSR Net Worth	**$42,486.93**
Bob Clarke Award Fund	$ 528.86
Division 5 and 7 Rebates in Escrow	$ 122.50
Delattre Fund	$ 660.00
Outstanding checks	72.00
Future Advances due	$ -1000.00
Bank Saldo at bank	**$42,870.29**
Proceeds	
NMRA Region Rebate	$ 820.00
Total Proceeds	**$ 820.00**
Disbursements	
NMRA Rebate to Divisions	$ 410.00
Total Disbursements	**$ 410.00**
Net Proceeds - Disbursements	**$ 410.00**
Ending Balances (2020/10/31)	
Tulsa Advance	$ 1,000.00
LSR Unrestricted Accounts Total	$41,896.93
Total LSR Net Worth	**$42,896.93**
Bob Clarke Award	$ 528.86
Division 5 and 7 Rebates in Escrow	$ **145.00**
Delattre Fund	$ 660.00
Outstanding checks	$ **148.00**
Future Advances due	$ -1000.00
Bank Saldo at bank	**$43,378.79** *(confirmed!)*

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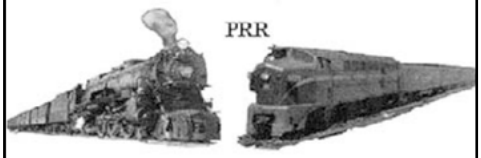

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Next deadline for submissions is January 15

The Marker Lamp

submittals and inquiries | rileytriggs@gmail.com